LE
3
A6
1920/21

CALENDAR OF THE

UNIVERSITY OF ALBERTA

EDMONTON

LIBRARY
SEP 7 1920
UNIVERSITY OF TORONTO

SESSION 1920–21

THE

UNIVERSITY OF ALBERTA

EDMONTON

CALENDAR 1920—21

Table of Contents

Academic Calendar 3
Board of Governors and Senate 5
Standing Committees 8
Officers of Instruction 10
Organization of the University 16
Matriculation 22
Subjects of Matriculation Examinations 28
Scholarships, Prizes, Medals 31
University Regulations:
- Fees 36
- Registration 37
- Attendance and Examinations 38
- Professional Examinations 41
- Discipline 41
- Residence 43
- Medical Service 44
- Student Functions 44
- Academic Costume 45

Faculty of Arts and Sciences 47
- The Degrees of B.A. and B.Sc. in Arts, Household Economics or in Pharmacy 48
- Honours Courses 50
- Combined Courses 56

Faculty of Applied Science 56
- The B.Sc. Degree in Engineering (Civil, Electrical, Mining) or in Architecture 56
- Combined Courses 56

Faculty of Medicine and Dentistry 63
- Combined Course 62

Faculty of Law 67
- Combined Course 67

Faculty of Agriculture 68
- The Degree of B.S.A. and of B.H.Ec. 68
- Combined Course 72

School of Pharmacy 74
School of Accountancy 76
Degrees with Distinction 77
Graduate Courses and ad eundem degrees 77
Details of Courses by Departments:—
- alphabetically arranged 79

Department of Extension 137
Industrial Laboratories 139
Department of Correspondence Courses 140
Affiliated Theological Colleges 141
Affiliated Preparatory Schools 145
Register of Students 146
Medals, Scholarships and Prizes, awarded 1919-20 155

ACADEMIC CALENDAR, 1920-21.

1920.

June 21—High School and University Matriculation Examinations begin.

Aug. 14—Last day for receiving applications for examinations in Medicine, Dentistry, and Law.

" 14—Last day for receiving applications for supplemental examinations.

" 14—Last day for receiving applications for September Matriculation at the office of the Chairman of the High School and University Matriculation Examinations Board, Parliament Buildings.

Sept. 13—Autumn Matriculation Examinations; Examinations of the College of Physicians and Surgeons of Alebrta, the Alberta Dental Association, the Law Society, and the Alberta Association of Registered Nurses.

" 13—All supplemental examinations.

" 27, 28—Registration of Freshmen and new students.

" 29—Registration of all other students.

" 29—Lectures in first year courses begin.

" 30—Lectures in all other courses begin.

Nov. 1—Last day for graduate and B.D. students to adjust courses or submit subject of investigation.

Dec. 24—Christmas vacation begins.

1921.

Jan. 3—Lectures begin.

" 24—Examinations of the Alberta Land Surveyors' Association.

Feb. 9—Ash Wednesday.

Mar. 25—Good Friday.

April 1—Last day for receiving applications for May Matriculation Examinations.

" 1—Last day for graduate students to hand in report of results of investigations or thesis.

" 2—Lectures close in first two years of Applied Science and Agriculture.

" 5—Examinations in Agriculture and first two years of Applied Science begin.

" 14—Survey School begins.

" 16—Lectures close in Arts, Law, Medicine, and Pharmacy, and the senior years of Agriculture and Applied Science.

" 19—Final examinations in all Faculties.

" 19—Examinations of the College of Physicians and Surgeons of Alberta, the Law Society, the Institute of Chartered Accountants, the Dental Association, Land Surveyors' Association, Architects' Association, Alberta Association of Registered Nurses, and the Professional Engineers.

May 9—Charter Day.

" 12—Convocation for the conferring of degrees.

Governing Body of the University of Alberta

VISITOR

THE HONORABLE ROBERT GEORGE BRETT, M.D., LL.D., Lieutenant-Governor of Alberta.

CHANCELLOR

THE HONORABLE CHARLES ALLAN STUART, B.A., LL.B., LL.D.

THE BOARD OF GOVERNORS

THE HON. HORACE HARVEY, M.A., LL.B., LL.D., Chief Justice of Alberta, Chairman.

JAMES RAMSEY, Esq., M.L.A., Vice-Chairman.

THE HONORABLE CHARLES ALLAN STUART, B.A., LL.B., LL.D., Chancellor of the University.

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

MISS ISABEL NOBLE, B.A.

MRS. WALTER PARLBY.

LEWIS MARTIN JOHNSTONE, LL.B., K.C.

JOHN DARLEY HARRISON, M.A., M.D., C.M.

WILLIAM E. HAY, Esq.

CECIL ETHELBERT RACE, B.A., C.A., Registrar and Bursar.

UNIVERSITY OF ALBERTA

THE SENATE.

Members Ex-Officio

HON. CHARLES ALLAN STUART, B.A., LL.B., LL.D., Chancellor.

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

THE HONORABLE HORACE HARVEY, M.A., LL.B., LL.D.. Chairman of the Board of Governors.

HON. NICHOLAS DUBOIS DOMINIC BECK, LL.B., Vice-Chancellor.

WILLIAM ALEXANDER ROBB KERR, M.A. Ph.D., Dean of the Faculty of Arts and Sciences.

ERNEST ALBERT HOWES, B.S.A., Dean of the Faculty of Agriculture.

ALLAN COATS RANKIN, M.D., C.M., D.P.H. (McGill), L.R.C.P., M.R.C.S., Dean of the Faculty of Medicine.

JOHN THOMAS ROSS B.A., Deputy Minister of Education.

REV. AUBREY STEPHEN TUTTLE, M.A., D.D., Principal of Alberta College.

JOHN McLEOD MILLAR, M.A., B.D., D.D., Principal of Robertson College.

RT. REV. HENRY ALLEN GRAY, M.A., D.D., LL.D., Warden of St. Aidan's College.

ERNEST WILLIAM COFFIN, B.A., Ph.D., Senior Principal of the Provincial Normal Schools.

Elected Members to Retire May 21st, 1923.

HON. ALEXANDER CAMERON RUTHERFORD, B.A., B.C.L., LL.D.
ROBERT HOWARD DOBSON, M.A.
JAMES ALEXANDER FIFE, B.A., M.Sc.
REV. DAVID GEORGE McQUEEN, B.A., D.D., LL.D.
WILLIAM ROBINSON HOWSON, B.A., LL.B.

Elected Members to retire May 20th, 1921.

WILLIAM M. DAVIDSON, B.A.
TRENHOLME DICKSON, B.A., B.C.L.
WILLIAM J. ELLIOTT, B.S.A.
WALTER STUART GALBRAITH, M.D., C.M.
EDWIN THOMAS MITCHELL, M.A.
JOHN MALCOLM MACEACHRAN, M.A., Ph.D.,

ROBERT WILLIAM BOYLE, M.A., Ph.D., Representative of the Faculty of Arts and Sciences to retire March 8th, 1922.

JOHN ANDREW ALLAN, M.Sc., Ph.D., Representative of the Faculty of Applied Science to retire March 8th, 1921.

GARNET HOMER CUTLER, B.S.A., Representative of the Faculty of Agriculture to retire March 8th, 1922.

JAMES BERTRAM COLLIP, M.A., Ph.D., Representative of the Faculty of Medicine to retire March 8th, 1922.

RICHARD H. KNIGHT B.Sc., Representative of the Alberta Land Surveyors' Association.

JOHN SUTHERLAND WRIGHT, M.B., Representative of the College of Physicians and Surgeons of Alberta.

HENRY GEORGE ROBB, D.D.S., Representative of the Alberta Dental Association.

JAMES HENDERSON, F.R.I.B.A., Representative of the Alberta Architects' Association.

HAROLD HAYWARD PARLEE, B.A., B.C.L., Representative of the Law Society of Alberta.

EDMOND DAVID CONACHER THOMSON, C.A., Representative of the Institute of Chartered Accountants of Alberta.

JOHN DAVID HIGINBOTHAM, Phm.B., Representative of the Alberta Pharmaceutical Association.

VICTORIA ISABEL WINSLOW, R.N., Representative of the Association of Registered Nurses of Alberta.

WALTER RICHARD PEARCE, B.A., Representative of the Association of Professional Engineers.

CECIL ETHELBERT RACE, B.A., C.A., Secretary to the Senate.

Officers of Administration

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

WILLIAM ALEXANDER ROBB KERR, M.A., Ph.D., Dean of the Faculty of Arts and Sciences.

ERNEST ALBERT HOWES, B.S.A., Dean of the Faculty of Agriculture.

ALLAN COATS RANKIN, M.D., D.P.H., C.M.G., Dean of the Faculty of Medicine.

JOHN MALCOLM MAC EACHRAN, M.A., Ph.D., Provost of the University.

CECIL ETHELBERT RACE, B.A., C.A., Registrar and Bursar of the University.

FRANK GRESTY BOWERS, M.A., Librarian of the University.

STANDING COMMITTEES

COMMITTEE ON STUDENT AFFAIRS

Members Ex-Officio

PRESIDENT TORY, Chairman.
The Chancellor, HON. CHARLES ALLAN STUART.
The Chairman of the Board, HON. HORACE HARVEY.
The Provost, PROFESSOR MAC EACHRAN.
Adviser to Women Students.

Representatives of the Senate

Two to be appointed.

Representatives of Faculties

Dean KERR. Dean HOWES.
Professor SHELDON. Dean RANKIN.

Representatives of the Students' Union

The President of the Students' Union; the President of the Literary Department; the President of the Athletic Association; the Editor-in-Chief of "The Gateway"; the President of the Wauneita Society; three members to be elected by the Students' Council.

HOUSE COMMITTEE

The Provost, PROF. J. M. MAC EACHRAN, Chairman.
The Adviser to Women Students, two resident students from each of the University Halls, a representative of the women students in residence, and one non-resident student.

SENATE COMMITTEE ON GRADUATE STUDIES

Dean KERR, Chairman. Professor BROADUS.
Professor MAC EACHRAN. Professor BOYLE.
Mr. LONG, Secretary.

SENATE COMMITTEE ON CERTIFICATES FOR ADMISSION

Dean KERR, Chairman. Dean HOWES.
Professor ALEXANDER. Dean RANKIN.
Associate Professor ADAM.
THE REGISTRAR, Secretary.

SENATE COMMITTEE ON PHYSICAL EDUCATION

President TORY, Chairman. Professor ALEXANDER.
Professor ALLAN. Associate Professor KILLAM.
THE PROVOST. DIRECTOR OF MEDICAL SERVICE
THE REGISTRAR. Miss FABB.
Mr. MAC RAE, Secretary.

COMMITTEE ON STUDENTS' ATHLETICS

Committee on Physical Education, together with the President of the Students' Athletic Association, and the Presidents of Major Athletic Clubs.

STANDING COMMITTEES

SENATE COMMITTEE ON UNIVERSITY EXTENSION

President TORY, Chairman.

Dean KERR.
Professor BROADUS.
Professor SHELDON.
Dean RANKIN.
Dean HOWES.
Professor LEHMANN.
Professor GAETZ.
Miss PATRICK.

A. E. OTTEWELL, Director of the Department of Extension.
D. E. CAMERON, Asst-Director of the Department of Extension.

MEDICAL SERVICE COMMITTEE

The PRESIDENT, Chairman.
The PROVOST.
The Medical Director.
The President of the Students' Union.

COMMITTEE ON HONOURS

Professor LEHMANN, Chairman.
Associate Professor GORDON.
Associate Professor BURT.
Professor LEWIS.
Associate Professor KILLAM, Secretary.

COMMITTEE ON THE LIBRARY

President TORY, Chairman.
Professor ALEXANDER.
Professor MAC EACHRAN.
Dean RANKIN.
Dean HOWES.
Professor BROADUS.
Professor LEWIS.
Professor WILSON.

F. G. BOWERS, Librarian, Secretary.

COMMITTEE ON EXAMINATIONS

Professor SHELDON, Chairman.
Professor DOWELL.
Professor OWER.
Associate Professor MORRISON.
The REGISTRAR, Secretary.

COMMITTEE ON TIME-TABLES

Dean KERR, Chairman.
Associate Professor KILLAM.
Associate Professor COLLIP.
Professor SHELDON, Secretary.
Professor ALLAN.
Professor MAC GIBBON.
Professor CUTLER.

COMMITTEE ON APPORTIONMENT OF LABORATORY FUNDS

President TORY, Chairman.
Professor LEHMANN.
Professor LEWIS.
Professor ALLAN.
Professor GAETZ.
Associate Professor COLLIP.
Dean HOWES.
Professor SHELDON.
Professor BOYLE.
Associate Professor ADAM.
The REGISTRAR, Secretary.

Officers of Instruction

GENERAL FACULTY COUNCIL

President TORY.
Dean HOWES.
Dean RANKIN.
Professor BROADUS.
Professor LEHMANN.
Professor LEWIS.
Professor ALLAN.
Professor DOWELL.
Professor MAC GIBBON.
Professor WILSON.
Professor DOWNS.
Professor BURGESS.
Associate Professor ADAM.
Mr. MAC RAE.
Mr. RACE, Secretary.
Dean KERR.
Professor ALEXANDER.
Professor MAC EACHRAN.
Professor SHELDON.
Professor BOYLE.
Professor REVELL.
Professor GAETZ.
Professor CUTLER.
Professor COAR.
Professor WYATT.
Professor OWER.
Professor PITCHER.
Associate Professor COLLIP.
Miss PATRICK.

FACULTY OF ARTS AND SCIENCES

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

WILLIAM ALEXANDER ROBB KERR, M.A. (Toronto), Ph.D. (Harvard), Professor of Modern Languages, Dean of the Faculty.

WILLIAM HARDY ALEXANDER, M.A. (Toronto), Ph.D. (California), Professor of Classics.

EDMUND KEMPER BROADUS, M.A. (Chicago), Ph.D. (Harvard), Professor of English Language and Literature.

JOHN MALCOLM MAC EACHRAN, M.A. (Queen's), Ph.D. (Leipzig), Professor of Philosophy.

ADOLF LUDWIG FERDINAND LEHMANN, B.S.A. (Toronto), Ph.D. (Leipzig), Professor of Chemistry.

ERNEST WILLIAM SHELDON, M.A. (McGill), Ph.D. (Yale), Professor of Mathematics.

FRANCIS JOHN LEWIS, D.Sc. (Liverpool), F.R.S.E. & C., F.L.S., Professor of Biology.

ROBERT WILLIAM BOYLE, M.A., Ph.D. (McGill), Professor of Physics.

JOHN ANDREW ALLAN, M.Sc. (McGill), Ph.D. (Mass. Inst. Tech.), Professor of Geology.

JOHN FIRMAN COAR, M.A., Ph.D. (Harvard), Professor of German.

DUNCAN ALEXANDER MAC GIBBON, M.A. (McMaster), Ph.D. (Chicago), Professor of Economics.

GENEVA MISENER, M.A. (Queen's), Ph.D. (Chicago), Associate Professor of Classics.

SAMUEL DOUGLAS KILLAM, M.A. (Mt. Allison), Ph.D. (Gottingen), Associate Professor of Applied Mathematics.

ROBERT KAY GORDON, B.A. (Oxon.), M.A., Ph.D. (Toronto), Associate Professor of English.

ALFRED LEROY BURT, B.A. (Toronto), M.A. (Oxon.), Associate Professor of History.

OFFICERS OF INSTRUCTION

EDOUARD SONET, B-és-L. (Lyons), Assistant Professor of French.

ALFRED DENYS COWPER, B.Sc. (London), Assistant Professor of Chemistry.

JOHN BURGON BICKERSTETH, M.A. (Oxon.), M.C., Assistant Professor of French.

J. W. CAMPBELL, M.A. (Queen's), Ph.D. (Chicago), Assistant Professor of Mathematics.

STANLEY SMITH, M.A., B.Sc. (Oxon.), Assistant Professor of Physics.

MORDEN HEATON LONG, B.A. (Oxon.), Assistant Professor of History.

MABEL PATRICK, B.A. (Toronto), Lecturer in Household Economics.

CECIL ETHELBERT RACE, B.A. (Toronto), C.A., Lecturer in Mathematics and Accountancy, Registrar of the University.

The above constitute the Faculty Council.

AUGUSTE PAUL PELLUET, Lecturer in French.

WILLIAM BERRY, M.A. (Alberta), Lecturer in Philosophy.

GWYNETHE MARIE TUTTLE, M.Sc. (Alberta), Lecturer in Botany.

PAUL WALLACE, B.A. (Toronto), Lecturer in English and Oral Composition.

CLIVE HARCOURT CARRUTHERS, M.A. (Toronto), B.A. (Oxon.), Lecturer in Classics.

ROBERT JAMES LANG, B.A. (McMaster), M.A. (Toronto), Lecturer in Physics.

WILLIAM FREDERICK SEYER, M.Sc. (Alberta), Ph.D. (McGill), Lecturer in Chemistry.

FRANCIS OWEN, M.A. (Toronto), Lecturer in Modern Languages.

HENRI DE SAVOYE, B-és-L. (Paris), LL.B. (Alberta), Lecturer in French.

THESSALON HERBERT MILNE, M.A. (Toronto), Lecturer in Mathematics.

GLADYS BORDEN, B.A. (Mt. Allison), B.S. (Columbia), Instructor in Household Economics.

MRS. E. T. MITCHELL, M.Sc. (Alberta), Instructor in Mathematics.

LESLIE C. COX, M.A. (Toronto), Ph.D. (Chicago), Instructor in Classics.

GRACE ANN STEWART, M.A. (Alberta), Assistant in Geology.

REUBEN BENJAIMIN SANDIN, M.A. (Alberta), Assistant in Chemistry.

NORMAN MC KEE STOVER, B.Sc. (Alberta), Assistant in Chemistry.

DUNCAN ALBERT MAC RAE, B.P.E., Director of Physical Education.

CHRISTINE LOUISE FABB, Assistant Director of Physical Education.

FACULTY OF APPLIED SCIENCE

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

EDMUND KEMPER BROADUS, M.A. (Chicago), Ph.D. (Harvard), Professor of English Language and Literature.

WILLIAM ALEXANDER ROBB KERR, M.A. (Toronto), Ph.D. (Harvard), Professor of Modern Languages, Dean of the Faculty of Arts and Sciences.

ADOLF LUDWIG FERDINAND LEHMANN, B.S.A. (Toronto), Ph.D. (Leipzig), Professor of Chemistry.

ERNEST WILSON SHELDON, M.A. (McGill), Ph.D. (Yale), Professor of Mathematics.

ROBERT WILLIAM BOYLE, M.A., Ph.D. (McGill), Professor of Physics.

JOHN ANDREW ALLAN, M.Sc. (McGill), Ph.D. (Mass. Inst. Tech.), Professor of Geology.

CECIL SCOTT BURGESS, A.R.I.B.A., Professor of Architecture.

JOHN FIRMAN COAR, M.A., Ph.D., (Harvard), Professor of German.

ROBERT STARR LEIGH WILSON, B.Sc. (McGill), Professor of Civil and Municipal Engineering.

NORMAN C. PITCHER, M.Sc. (McGill), Professor of Mining Engineering.

CHARLES ALEXANDER ROBB, B.Sc. (McGill), M.S. (Mass. Inst. Tech.), Associate Professor of Mechanical Engineering.

JAMES ADAM, M.A. (Alberta), Associate Professor of Drawing and Descriptive Geometry.

SAMUEL DOUGLAS KILLAM, M.A. (Mt. Allison), Ph.D. (Gottingen). Associate Professor of Applied Mathematics.

ROBERT KAY GORDON, B.A. (Oxon.), M.A., Ph.D. (Toronto), Associate Professor of English.

IBRAHIM FOLLANSBEE MORRISON, B.S. (Mass. Inst. Tech.), Associate Professor of Civil Engineering.

J. W. CAMPBELL, M. A., Ph.D., Assistant Professor of Mathematics

STANLEY SMITH, M.A., B.Sc. (Oxon.), Assistant Professor of Physics.

ALFRED DENYS COWPER, B.Sc. (London), M.Sc. (Alberta), Assistant Professor of Chemistry.

ALAN EMERSON CAMERON, M.Sc. (McGill), Assistant Professor of Mining Engineering.

HECTOR JOHN MC LEOD, B.Sc. (McGill), M.Sc. (Alberta), Lecturer in Electrical Engineering. (On leave of absence.)

CECIL ETHELBERT RACE, B.A. (Toronto), C.A., Lecturer in Mathematics and Accountancy; Registrar of the University.

The above constitute the Faculty Council.

WALTER MAXWELL FIFE, B.Sc. (Alberta), Lecturer in Civil Engineering.

WILLIAM FREDERICK SEYER, M.Sc., Ph.D., Lecturer in Chemistry.

AUGUSTE PAUL PELLUET, Lecturer in French.

ROBERT JAMES LANG, B.A. (McMaster), M.A. (Toronto), Lecturer in Physics.

THESSALON HERBERT MILNE, M.A., Lecturer in Mathematics.
MRS. E. T. MITCHELL, M.Sc. (Alberta), Instructor in Mathematics.
REUBEN BENJAIMIN SANDIN, M.A. (Alberta), Assistant in Chemistry.
NORMAN MC KEE STOVER, B.Sc. (Alberta), Assistant in Chemistry.
DUNCAN ALBERT MAC RAE, B.P.E., Director of Physical Education.
CHRISTINE LOUISE FABB, Assistant Director of Physical Education.

FACULTY OF MEDICINE

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

ALLAN COATS RANKIN, M.D.C.M., D.P.H. (McGill), L.R.C.P., M.R.C.S., C.M.G., Dean of the Faculty, Professor of Bacteriology, Director of the Provincial Laboratory.

WILLIAM ALEXANDER ROBB KERR, M.A. (Toronto), Ph.D. (Harvard), Professor of Modern Languages.

ADOLF LUDWIG FERDINAND LEHMANN, B.S.A. (Toronto), Ph.D. (Leipzig), Professor of Chemistry.

JOHN MALCOLM MAC EACHRAN, M.A. (Queen's), Ph.D. (Leipzig), Professor of Philosophy.

ROBERT WILLIAM BOYLE, M.A., Ph.D. (McGill), Professor of Physics.

FRANCIS JOHN LEWIS, D.Sc. (Liverpool), F.R.S.E. & C., F.L.S., Professor of Biology.

DANIEL GRAISBERRY REVELL, B.A., M.B. (Toronto), Professor of Anatomy.

JOHN JAMES OWER, B.A., M.D., C.M. (McGill), Professor of Pathology, Provincial Serologist.

ARDREY W. DOWNS, M.A., M.D., D.Sc., Professor of Physiology and Bio-chemistry.

HALLY HAMILTON GAETZ, Professor of Pharmacy and Materia Medica.

JAMES BERTRAM COLLIP, M.A., Ph.D. (Toronto), Associate Professor of Physiology and Bio-chemistry.

EDWARD NAUGHTIN COLLINS, B.Sc., Assistant Professor of Anatomy.

CECIL ETHELBERT RACE, B.A. (Toronto), C.A., Registrar.

The above constitute the Faculty Council

GORDON CAMERON GRAY, M.B. (Toronto), Lecturer in Surgery (1919-20).

WILFRID ALFRED WILSON, M.D., C.M. (McGill), Instructor in Surgery (1919-20).

HEBER CARSS JAMIESON, M.B. (Toronto), Lecturer in Clinical Medicine.

PERCY LAVERN BACKUS, M.D., C.M. (McGill), Lecturer in Physiology.

JOHN ALBERT MC PHERSON, M.B. (Toronto), Demonstrator in Anatomy (1919-20).

IRVING R. BELL, B.A., M.B. (Toronto), Demonstrator in Physiology and Bio-chemistry (1919-20).

JAMES FENWICK ADAMSON, M.D. (Toronto), Demonstrator in Anatomy (1919-20).

JOHN FRANCIS FOLLINSBEE, M.R.C.S. (England), L.R.C.P. (London), Demonstrator in Anatomy (1919-20).

LESLIE LOCKHART FULLER, D.D.S. (Phila.), Instructor in Prosthetic Dentistry.

HARRY ERNEST BULYEA, D.M.D. (Harvard), Instructor in Operative Dentistry.

DUNCAN ALBERT MAC RAE, B.P.E., Director of Physical Education.

CHRISTINE LOUISE FABB, Dipl. C.C.P.E., Assistant Director of Physical Education.

FACULTY OF AGRICULTURE.

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

ERNEST ALBERT HOWES, B.S.A. (Toronto), Dean of the Faculty.

EDMUND KEMPER BROADUS, M.A. (Chicago), Ph.D. (Harvard), Professor of English.

ADOLF LUDWIG FERDINAND LEHMANN, B.S.A. (Toronto), Ph.D. (Leipzig), Professor of Chemistry.

ERNEST WILSON SHELDON, M.A. (McGill), Ph.D. (Yale), Professor of Mathematics.

FRANCIS JOHN LEWIS, D.Sc. (Liverpool), F.R.S.E. & C., F.L.S., Professor of Biology.

ROBERT WILLIAM BOYLE, M.A., Ph.D. (McGill), Professor of Physics.

JOHN ANDREW ALLAN, M.Sc. (McGill), Ph.D. (Mass. Inst. Tech.), Professor of Geology.

ALLAN COATS RANKIN, M.D., C.M., D.P.H., C.M.G., Professor of Bacteriology.

AUSTIN ALLYN DOWELL, B.S.A. (Ames), Professor of Animal Husbandry.

GARNET HOMER CUTLER, B.S.A. (Toronto), Professor of Field Husbandry.

FRANK ARCHIBALD WYATT, M.S., Ph.D. (Illinois), Professor of Soils.

JOHN ERNEST LATTIMER, B.S.A. (Toronto), Assistant Professor of Animal Husbandry.

ROBERT NEWTON, B.S.A. (McGill), Assistant Professor of Field Husbandry.

STANLEY SMITH, M.A., B.Sc. (Oxon.), Assistant Professor of Physics.

JAMES R. FRYER, M.A., (Toronto), Assistant Professor of Field Husbandry.

GEORGE HARCOURT, B.S.A. (Toronto), Lecturer in Horticulture and Assistant to the Dean.

MABEL PATRICK, B.A. (Toronto), Lecturer in Household Economics.
CECIL EHTELBERT RACE, B.A. (Toronto), C.A., Registrar.
The above constitute the Faculty Council.

PERCY RUSSELL TALBOT, V.S. (Toronto), M.D.V. (Chicago), Special Lecturer in Veterinary Science.
DUNCAN ALBERT MAC RAE, Director of Physical Education.
CHRISTINE LOUISE FABB, Assistant Director of Physical Education.

FACULTY OF LAW

HENRY MARSHALL TORY, M.A., D.Sc., LL.D., F.R.S.C., President of the University.

Lecturers for Session 1919-20—Edmonton

WALTER S. SCOTT, B.A., LL.D.
H. H. PARLEE, B.A., B.C.L.
A. U. G. BURY, M.A.
GEORGE H. STEER, M.A.
FRANK FORD, M.A., D.C.L., K.C.
E. T. BISHOP, B.A., LL.B.
W. D. CRAIG, B.A., LL.B.

Lecturers for Session 1919-20—Calgary

W. KENT POWER, B.A., LL.B.
JOSEPH T. SHAW, LL.B.
ALEXANDER HANNAH, Esq.
S. E. BOLTON, B.A.
P. A. CARSON, B.A.
E. A. DUNBAR, B.A., LL.B.
L. W. BROCKINGTON, B.A.
J. M. CARSON, K.C.
W. H. SELLAR, M.A., LL.B.
A. MACLEOD SINCLAIR, Esq.
L. F. MAYHOOD, B.A., LL.B.
W. G. EGBERT, B.A., LL.B.
J. B. BARRON, LL.B.

SCHOOL OF PHARMACY

H. H. GAETZ, Director.

President TORY.
Professor LEHMANN.
Professor LEWIS.
Professor RANKIN.
F. A. S. DUNN.
Professor ALEXANDER.
Professor SHELDON.
Professor BOYLE.
Associate Professor COLLIP.
C. E. RACE, Registrar.

SCHOOL OF ACCOUNTANCY

President TORY.
A. E. POPPLE, LL.B.
C. R. LENNAN, C.A.
C. E. RACE, B.A., C.A., Registrar.
C. L. RICHARDSON, C.A.
M. C. MC CANNEL, C.A.

CORRESPONDENCE DEPARTMENT

DUNCAN STEWART MAC KENZIE, Director.
JANET MAC GREGOR MC BRATNEY, Instructor in Languages.
ANNIE NORRINGTON, B.Sc. (Manitoba), Instructor in Science and History.
MRS. E. T. MITCHELL, M.Sc. (Alberta), Instructor in Mathematics.

Organization of the University

HISTORY AND GOVERNMENT

The University of Alberta was created by an act of the Legislature of the Province passed at the first session after provincial autonomy had been granted (1906); that is, the act created the machinery by which the University could be brought into existence. By this act the University, which then consisted of the Chancellor, the Vice-Chancellor, the Senate, and the Convocation, was empowered to undertake the organization and development of the teaching faculties, to affiliate colleges, and, generally, to undertake all work relating to an institution of higher learning. An amendment to the act, passed during the session of the Legislature in 1907, authorized the Lieutenant-Governor-in-Council as a preliminary step to the organization of the University, to appoint the first President, to whom was to be given the responsibility, in conjunction with the Senate, of organizing and developing the university scheme. Acting upon this authority the Government selected the first President, who entered upon his duties on January 1st, 1908.

Under the act, all resident graduates of British and Canadian universities were entitled to become members of the convocation of the University of Alberta by registering before a fixed date. Three hundred and sixty-four graduates, representing all the Canadian and many of the British universities, registered, so that a large and representative body constituted the first convocation.

The act has also provided that the Senate should consist of fifteen members, ten to be appointed by the Government, five to be elected by the members of Convocation from among themselves. The Chancellor likewise was to be chosen by a ballot of Convocation. The voting for the first Senate election closed on March 18th, 1908, and immediately thereafter the Government nominated its ten representatives, Mr. Justice Stuart of Calgary was chosen as first Chancellor.

As the Act made the Senate the governing body of the University, both in relation to education and business management, at the first meeting of that body, on March 30th, 1908, it took all the necessary steps to organize the first faculty, to be known as the Faculty of Arts and Sciences, and

to open the University of Alberta for classes in this Faculty in September 1908.

At the second meeting of the Senate, held in Calgary, July 6th, 1908, the first faculty appointments were made, four professors being named to co-operate with the President in the work of commencing instruction.

The first session of the University opened on September 23rd, 1908. The total registration for the session was forty-five, four of whom were students taking graduate courses in the Department of Physics.

At the second session of the Second Legislature, November, 1910, a comprehensive measure reorganizing in large part the government of the University was introduced and passed into law. By the new act a Board of Governors was constituted, to consist of the Chancellor and the President of the University, ex-officio, together with nine members to be appointed by the Lieutenant-Governor-in-Council; the functions of this Board may be defined generally as those of business management and administration, including the making of appointments to the teaching and office staff of the University, the handling of all University moneys and investments, and the supervision of buildings and grounds. The Senate, by this same act, was continued as a body entrusted with the general supervision of the University's educational work. It is defined by the statute to consist of the Board of Governors, the President, the heads of affiliated Colleges, the Deans of the University Faculties, all ex-Chancellors or ex-Vice-Chancellors of the University, the Senior Principal of the Provincial Normal Schools, and the Superintendent of Education for the Province ex-officio; of faculty representatives; of representatives of all societies whose examinations for status are conducted by the University; and of ten members elected by Convocation. The prerogatives of the Senate include the field of student regulation and discipline, the approval of all educational schedules or programmes, and the establishing and conferring of degrees. The Convocation, under this act, is composed of all graduates of the University and of all the resident graduates of British and Canadian universities who registered under the University Act of 1906. The Convocation is empowered to consider all questions affecting the well-being of the University and to make representation Convocation is empowered to consider all questions affecting the well-being of the University and to make representation thereupon to the Board and to the Senate.

Conformably with the provisions of this act, late in December, 1910, the Lieutenant-Governor-in-Council appointed nine members of the Board of Governors, who met early in January, 1911, and organized by electing E. C. Pardee, Esq., of Edmonton, Chairman. An election for members of the Senate, in accordance with the terms of the act, was ordered. By March 8th the elective members of the Senate had been chosen, and the new Senate held its first meeting for the transaction of business on March 31st, 1911, completing among other items arrangements for the first graduation exercises of the University. These took place on May 16th, 1911.

During the summer of 1911 Athabasca Hall, the first building of the University scheme to be completed, was made ready for occupation, and lectures were given for the first time on the University Grounds in September of that year. At the same time excavations were begun for a second hall of a similar nature. This became available for partial occupation in October, 1912, and in its entirety by the beginning of 1913 under the name of Assiniboia Hall. In the autumn of 1913 the foundations of the third building, Pembina Hall, were laid, and in October, 1914, a considerable part of it was ready for use as class-rooms. It is now used for residential purposes only.

From its very beginning the University of Alberta has undertaken extension work in the form of lectures by members of its staff in a number of important provincial centres, but special emphasis was laid upon this side of the University's activities by the appointment in May, 1912, of a special Secretary of the Department of Extension. This officer undertook the task of systematizing the extension work in such a way as to enable the University to achieve more fully the important function of reaching in its educational work the people of the province at large.

The Department of Extension also inaugurated in 1913 a press bulletin, a system of travelling libraries, and a bureau of information from which literary clubs and debating societies can obtain briefs on issues of all sorts. It organized in the same year a high school debating league which has stimulated very remarkably the interests of the secondary schools of the Province in argumentation and public speaking. A new departure in 1915 was the presentation to Edmonton and Calgary audiences a series of discussions on the social problems of western Canadian life.

The year 1912 saw another development of the University's activity in the creation of a Faculty of Law; this was effected by a resolution of the Senate under date of October 3rd, upon which the Board of Governors took favorable action shortly afterwards. A three year course leading to the degree of LL.B. was established, and thirty-five students were enrolled for the first session of the new faculty. In 1914 this course, portions of which concide with the requirements of the Alberta Law Society, was extended to cover four years.

In the autumn of 1913 the Department of Civil Engineering and its allied subjects ceased to form a portion of the original Faculty of Arts and Sciences, and were constituted a new faculty under the name of the Faculty of Applied Science. At the same time the fourth University faculty came into existence, and instruction began in the Faculty of Medicine. Twenty-six students constituted the first class in this faculty, and arrangements have been perfected to carry them through at least three years of a five year course, with the privilege of being then transferred, if necessary, with full standing to certain Eastern universities. Under the Faculty of Medicine a Department of Pharmacy has been organized; instruction in this Department began in October, 1914, designed to prepare students to satisfy the requirements of the Pharmaceutical Association of Alberta. Features of interest in connection with the Faculty of Medicine are the University Medical Service whereby the health of all students is supervised in a very direct manner, and the outdoor clinics given at the city hospitals by members of the faculty.

In December 1913 the contracts were let for the construction of what is known as the main teaching building of the University. This fine structure in the neo-classic style ranks high among the university buildings of Canada for the combination it presents of utility and beauty. It was occupied in October 1915, being opened with comparatively simple ceremonies because of the shadow of war which then began to rest so heavily upon the country.

Of the work of the University in the war, record will be made elsewhere; it is fitting however to note here that the University of Alberta sent into various branches of His Majesty's service in all parts of the world 438 undergraduates, alumni, and staff-members. Of these a large number received special military decorations from the British Empire and several also from the French Republic, while to more than sixty it was given to offer for their country the last measure of sacrifice.

During the long period of the Great War all building activities were suspended, but in May 1919 arrangements were made to proceed with an extension of the then existing civil engineering unit and to duplicate this building by a similar structure at the north end of the main teaching building. It is the expectation that these new units of the University plan will be occupied by classes in October 1919.

In September 1915 the fifth university faculty came into existence when the Faculty of Agriculture was created. The southern end of the university property is largely devoted to the farm buildings and experimental plots of this College, and it became necessary in the spring of 1919 to acquire still more land a short distance south of the university site proper in order to provide further facilities for the study of animal husbandry.

Pharmacy, which as above noted began its work as a Department of the Faculty of Medicine in October, 1914, was in the spring of 1917 erected into a School of Pharmacy, designed not only to give instruction in such work as is required by the Pharmaceutical Association of Alberta but also to carry forward to a degree such students as may determine to devote four years of study to the work. In this manner the whole standard of Pharmacy in the Province of Alberta is distinctly elevated.

Dentistry was authorized as a sub-faculty under the Faculty of Medicine in 1917, and the first students under this arrangement offered themselves in the session of 1918-19. It is proposed for the present that they shall complete their work in eastern schools under equitable arrangements such as have been made for students in the Faculty of Medicine.

In 1918 the Department of Household Economics was organized under the Faculty of Arts and Sciences, the need having already been made clear by a demand for this work the previous session. In the fall of 1918 also special recognition was accorded the physical needs of the rapidly growing body of women students by the appointment of a Directress of Physical Education for Women.

In the fall of 1918 the College of Agriculture lent itself most heartily to the pressing demands of reconstructional education by offering courses of a special nature in various agricultural lines and also in carpentering and blacksmithing. A large number of returned soldiers were in this way most

satisfactorily accommodated, and it is expected that this work will be continued during several years to come.

The insistent demands of the economic and social problems of the province were recognized by the creation in the spring of 1919 of chairs of Soils, Mining Engineering, and Economics, in all of which a full measure of work was given in the fall of 1919. All of these subjects had previously been handled as branches of already existing departments but with the recognition of their growing importance came the decision to treat them as independent units of the educational scheme.

The extraordinary increase in the number of students in the Faculty of Medicine made it absolutely imperative in the fall of 1919 to consider the question of the future housing of that Faculty, and the Board of Governors authorized early in 1920 the construction of a Medical Building, work on which began in April of that year. The new edifice faces south on the quadrangle of university buildings, and is in architectural harmony with the general neo-classic style adopted some years previously for the whole university scheme. In addition to accommodating the Department of Chemistry, it contains laboratories for the Departments of Anatomy, Physiology, Bio-Chemistry, Pathology, and Public Health, and also two lecture halls in the theatre form with a capacity of two hundred students each. Full advantage has been taken in the erection of this building of the wide experience afforded by the last twenty years in such matters.

The status of the School of Pharmacy was augmented during the academic year 1919-20 by the creation of the office of Director of the School; this step completed the evolution of the School from a Department under the Faculty of Medicine to an independent unit in the university plan.

During the session of 1919-20, the entire university curriculum in all faculties was subjected to careful scrutiny and revision in the light of the most recent developments in the theory of university education and of the growth of the demand in the province for university training, and the results of this investigation, constituting the most important advance in the scholastic history of the institution, became available by authorization of the Senate for the academic year beginning in September, 1920. The general aim of the revision was to secure greater freedom in the election of courses without

abandoning in any sense the basic features of a sound education as dictated by long experience.

A notable feature of the university life during the winter of 1919-20 was the formation of the Scientific Association of the University of Alberta, comprising all the members of the staff engaged in teaching and research work in the pure and applied sciences. The meetings of this society revealed in a convincing way the present lack of knowledge existing in regard to the facts upon which the economic life of the Province of Alberta must ultimately depend, and at least forty problems of pressing importance were definitely formulated and submitted to the government of the province for consideration. With the entire concurrence of the latter the university assumed through its various departments the important duty of economic research into the resources of the province under the general chairmanship of the Honorable J. L. Coté, Provincial Secretary, and during the field season of 1920 operations began on a definite and considered basis. In this connection the university farm, primarily equipped for the purposes of the Department of Agriculture, was authorized by the Board of Governors to conduct an experimental station for agricultural research.

The deanships of the University, first instituted in May 1914 by the appointment of Professor Kerr as Dean of the Faculty of Arts and added to by the appointment of Dean Howes in the Faculty of Agriculture in 1915, were further increased in the spring of 1920 by the nomination of Dr. Rankin to the deanship of the Faculty of Medicine.

THE LIBRARY

The library comprises a reference room, a reading room where journals are kept, and a stack room.

There are now altogether over 17,000 volumes in the library, besides a large number of pamphlets, blue-books and periodicals.

A feature of the library is a large collection of books, written by Canadians and about Canada, which was presented to the University by the Honourable A. C. Rutherford.

Matriculation

CLASSIFICATION OF STUDENTS

The courses of study in the University are open to men and women on equal footing.

Except under special circumstances no student under sixteen years of age will be admitted to the first year, or under seventeen to the second year.

No one shall be registered as a student for a full undergraduate course who has failed in more than two of the subjects enumerated in the Matriculation Examination Requirements for the various faculties.

Students are classified as Graduate, Undergraduate, Conditioned, Partial and Special.

Graduate students are those who hold the Bachelor's degree (B.A. or B.Sc. in Arts) and are either pursuing special studies in advanced courses, or have been formally admitted upon the recommendation of the Committee on Graduate Studies, to candidacy for the Master's degree.

Undergraduates are matriculated students who are taking a full undergraduate course leading to a degree. In order to become undergraduates, candidates must have passed the full matriculation examination of the University or some other equivalent examination.

Conditioned students are those who having failed in not more than two subjects of their matriculation examination are actually taking a full undergraduate course leading to a degree, and are entitled to obtain undergraduate standing on completing their matriculation.

For students who are deficient in the language subjects and are admitted as conditioned students, special preparatory classes are provided. Students are advised, however, that the additional work required in carrying these preparatory classes constitutes a handicap which should be avoided if possible.

Partial Students. Students who are proceeding to a degree but who are not registered for a full undergraduate course, or who during the session drop two courses, are partial students.

Special students are those who, not belonging to one of the above classes of students, are pursuing the study of particular subjects. Such students may, subject to the approval of the Committee on Admissions, attend classes without previous examination, but any classes so taken can not be credited towards a degree.

MATRICULATION EXAMINATIONS

Examinations for entrance to the University are conducted three times each year, in April, June and September, under the control of the High School and University Matriculation Examinations Board. The subjects of examination follow. Applications for these examinations should be made about two months before the date of examination to the secretary of the High School and University Matriculation Examinations Board, Department of Education, Government Buildings, Edmonton.

MATRICULATION SCHOLARSHIPS

In 1921 there are offered eight scholarships of $25 each, given by the Senate and the Board of Governors of the University.

Six of these scholarships will be awarded on the results of the June examinations set by the High School and University Matriculation Examinations Board. The other two scholarships will be awarded on the results of the April examinations held for the affiliated colleges. One of these scholarships is available for those candidates taking the examination in Edmonton, the other for those in Calgary. Only those candidates who write on the whole of the matriculation examination and pass in each subject thereof will be eligible for these scholarships.

The Women's University Club Scholarship of $25.00 is open to women students only on the results of the June Grade XI (Matriculation) examinations for highest standing in English, History, Latin, and French, provided the student passes her other examinations and obtains an average mark of not less than 75 % in the four subjects named. The scholarship is payable after the student is in actual attendance at the University.

EQUIVALENT EXAMINATIONS

The Grade IX certificate of Alberta is accepted in the subject of British History, the Grade X certificate in the subjects of English Grammar and Canadian History, the Grade XI certificate pro tanto for the other subjects of matriculation and the Grade XII certificate pro tanto for the first year courses in the University. Requests for exemption from the matriculation examination based on these or other certificates should be addressed to the Registrar, University of Alberta.

ADVANCED STANDING

Any student of another university wishing to be admitted to this university with equivalent standing is required to send with his application:

1. A calendar of the university in which he has studied.
2. A complete statement of the course of study he has followed.
3. A certificate of standing and conduct from the university in which he has studied.

MATRICULATION EXAMINATION REQUIREMENTS

A—For those not presenting Grade IX and X certificates.

I.—For those intending to take the B.A. course:

1. **English Grammar.**
2. **English Composition.**
3. **English Literature.**
4. **British and Canadian History.**
5. **History.** (General and Canadian Constitutional.)
6. **Arithmetic.**
7. **Algebra.**
8. **Geometry.**
9. **Latin.**

10 and 11. Two of the following: **French, German, Greek, Elementary Science (Physics or Chemistry or Agriculture.)**

II.—Those entering upon other courses are required to pass in subjects 1 to 8 inclusive, but there are certain variations in the remaining subjects, as follows:

For B.Sc. in Arts or in Household Economics and for B.S.A.—Any two foreign languages and an elementary science.

For B.Sc. in Engineering.—Grade XII standing in the following subjects: English, History, French (or German), Algebra, Geometry, Trigonometry, Chemistry or Physics; or the equivalent work in first year Arts at the University; no work in the first year Applied Science course to be allowed while the first year Arts course is being taken.

For B.Sc. in Architecture.—French and Physics and certain original drawings (details on application).

For M.D., or D.D.S.—Latin, Chemistry Physics, and either French or German.

For LL.B., or Articles in Law.—The same as for B.A.

For Phm.B.—Latin, Chemistry, and Physics.

For information regarding requirements leading to diplomas in Pharmacy and in Accountancy apply to the Registrar of the University.

B.—For those presenting Grade IX and X certificates.

I.—For those intending to take the course leading to the degree of B.A., B.Sc. in Arts, or LL.B.:

1. **English Composition.**
2. **English Literature.**
3. **History.** (General and Canadian Constitutional)
4. **Algebra.**
5. **Geometry.**

*6. **Latin,** or **Greek** or **French** or **German.**

7 and 8. Two of the following: **Physics, Chemistry, Agriculture,** a second foreign language selected from No. 6.

II.—For those intending to take the B.Sc. course in Engineering:

Grade XII standing in the following subjects: English, History, French (or German), Algebra, Geometry, Trigonometry, Chemistry or Physics; or the equivalent work in first year Arts at the University; no work in the first year Applied Science course to be allowed while the first year Arts course is being taken.

III.—For those intending to take the B.Sc. course in Architecture:

1. **English Composition.**
2. **English Literature.**
3. **History.** (General and Canadian Constitutional.)
4. **Algebra.**
5. **Geometry.**
6. **French or German.**
7. **Physics.**

Students entering the Architectural Course are also required at the beginning of the session to submit to the head of the department drawings of plant or other common forms drawn from actual subjects.

*Any one of these is to be taken, but candidates for the degree of B.A. or LL.B. who do not present Latin for Matriculation are required to take the preparatory course (Latin A).

IV.—For those intending to take the M.D. course, or the course in Dentistry:

1. **English Composition.**
2. **English Literature.**
3. **History.** (General and Canadian Constitutional.)
4. **Algebra.**
5. **Geometry.**
6. **Latin.**
7. **Chemistry.**
8. **Physics.**
9. **French or German.**

V.—(a) For those intending to take the three years course leading to the degree of B.S.A., the entrance requirement is a Certificate of Qualification from a Provincial School of Agriculture, or its equivalent.

(b) For those intending to take the four years course leading to the degree of B.S.A., the entrance requirement is the same as matriculation for B.Sc. in Arts.

(c) For those intending to take the three years course leading to the degree of B.H.Ec., the entrance requirement is a Certificate of Qualification from a Provincial School of Agriculture. In addition to the recommendation of the Principal of a School of Agriculture, candidates for the three years course must produce a certificate of having passed all the regular examinations of the second year at one of the Schools of Agriculture with at least 60% of the marks in each subject.

VI.—For those intending to take the course for the degree of B.Sc. in Pharmacy:

1. **English Composition.**
2. **English Literature.**
3. **History.** (General and Canadian Constitutional.)
4. **Algebra.**
5. **Geometry.**
6. **Latin.**
7. **Chemistry.**
8. **Physics.**

The conditions of apprenticeship may be obtained from the registrar of the Alberta Pharmaceutical Association.

VII.—For those intending to take the course for the diploma in Accountancy:

1. **English Composition.**
2. **English Literature.**
3. **History.** (General and Canadian Constitutional.)
4. **Algebra.**
5. **Geometry.**
6. **French** or **German** or **Latin** or **Greek.**

7 and 8. Two of the following: **Physics, Chemistry, Agriculture,** a second foreign language selected from No. 6.

Write to the Registrar for special Bulletin of Information regarding requirements of the Institute of Chartered Accountants.

DETAILS OF MATRICULATION SUBJECTS

English Composition.

Essays based chiefly on subjects chosen from the texts prescribed for collateral reading. Text Book: Ontario High School English Composition (Copp, Clark Co.).

English Literature.

Every candidate is required to pass an examination based on the following texts. Precise knowledge of the subject matter and a reasonable acquaintance with form will be expected.

Year 1920-21.

Poetry. Shakespeare: Henry V.; Tennyson: The Holy Grail; Selected Lyrics (Palgrave's Golden Treasury): "Much have I travelled in the realms of gold" (Keats); "Two voices are there; one is of the sea" (Wordsworth); "The world is too much with us, late and soon" (Wordsworth); "When Music, heavenly maid, was young" (Collins); "The curfew tolls the knell of parting day" (Gray); "Now the last day of many days" (Shelley); "Ye banks and braes and streams around" (Burns); "O Brignall banks are wild and fair" (Scott); "Oft in the stilly night" (Moore); "Stern daughter of the Voice of God" (Wordsworth).

Note.—Choice selections from the above poems should be memorized.

Prose: Macaulay: Warren Hastings; Johnson: Rasselas.

Collateral Reading: Southey: Life of Nelson; Goldsmith: The Traveller; Lytton: Harold.

History. *(1) British and Canadian.—The outlines of British History with special reference to the period subsequent to 1485; outlines of Canadian history with special reference to the period subsequent to 1759; Dominion, Provincial and Municipal Civics. Text-books: High School History of England (Macmillan); Duncan, The Canadian People; Jenkins, Canadian Civics (Alberta Edition).

(2) General and Canadian Constitutional. General history to the close of the Mediaeval period; constitutional history of Canada. Text-books: Botsford, General History; Bourinot, How Canada is Governed.

Algebra.—Elementary graphs and their application to represent a point on a line, a point on a plane, an algebraic expression, a linear equation involving two unknowns; square and cube roots; theory of indices; surds; quadratics; equations of the second degree involving one and two unknowns; problems involving quadratics; character of the roots and coefficients of a quadratic equation and problems to illustrate these relations. Text-book: Crawford, High School Algebra.

Geometry.—Books III, IV and V. Propositions 4—8 (inclusive) of additional Propositions. Exercises and review. Text-book: Baker, Theoretical Geometry for Schools.

French.—Grammar. Review work of preceding grades; all irregular verbs. Siepmann, French Grammar.

Reading and Composition. Translation of the prescribed French Literature; translation at sight of passages of average difficulty from texts not prescribed; simple written composition; special emphasis on oral composition. Text-book: Labiche, Le Voyage de M. Perrichon.

The examination in French will consist of a written examination; two papers on Authors, Sight Translation and Grammar, and an oral test including dictation based on the prescribed readings. Of the total marks for the subject, 25% will be based on the oral test, 25% on translation, and 50% on grammar and written composition.

German.—Grammar. Review work of preceding grades

*Candidates who present Grades IX and X certificates may omit the paper on the outlines of British and Canadian History

and cover remainder of text book. Text-book: Collar, First Year German.

Reading and Composition. Translation of the prescribed literature; translation at sight of passages of average difficulty from texts not prescribed; simple written composition and special emphasis on oral composition. Text-book: Drei Kleine Lustspiele (Der Process and Einer muss heiraten).

The examination in German will consist of a written test in Grammar and Composition; a written test based on the prescribed Authors and Sight Translation, and an oral test in Conversation and Dictation. Of the total marks for the subject, 25% will be based on the oral test, 25% on translation, and 50% on Grammar and Composition.

Greek. (a) Grammar. The examination in this part of the work will be designed chiefly to test the student's mastery of Greek accidence.

(b) Composition. Short English sentences for translation into Greek, involving the more common idioms of Greek prose.

(c) Literature. Anabasis I, Chapters 1—5 inclusive; Macmillan's Elementary Classics.

Sight translation from easy narrative prose.

Questions on the subject-matter of the text prescribed.

Latin.—Grammar and Composition. Text-book: Robertson and Carruthers, Ontario High School Latin Book.

Literature.—Caesar, de Bello Gallico, Book IV, Chapters XX—XXXVIII; Book V, Chapters I—XXIII.

Virgil, Aeneid, Book II, lines 1—505.

The examination in Latin will consist of two papers, one on the Authors and Sight Translation, the other on the Grammar and Composition. One-third of the marks for the former paper will be assigned to Sight Translation.

Chemistry.—Text-book: Cornish, Chemistry. As in the prescribed text. The course shall be conducted experimentally as far as possible.

Physics.—Text-book: Merchant and Chant, The Ontario High School Physics, Chaps. 18—23 (inclusive), Chapters 32—39 (inclusive), Chaps. 41—48 (inclusive), and Chapter 50.

Agriculture.—"The course in Agriculture for Grade XI." For syllabus apply to the Registrar.

For details of Grade XII subjects see the regulations of the Department of Education.

UNDERGRADUATE SCHOLARSHIPS, PRIZES AND MEDALS

SCHOLARSHIPS

The Women's University Club Scholarship. The scholarship, of the value of $50, will be awarded to the woman student who takes the highest standing in the work of the First Year of the Faculty of Arts and Sciences, provided that, to secure the award, an average of not less than seventy-five per cent. be obtained on the work of the year. Further, the award will be contingent upon the student's proceeding with the work of the second year and will be paid only after the student has been in actual attendance in the second year of her course.

The Scholarships of the College of Physicians and Surgeons of the Province of Alberta. These are five in number and will be awarded as follows:

1. One to the student taking the highest average mark in the work of the freshman year.
2. One to the student taking the highest average mark in all courses in pure Physiology of the second and third years.
3. One to the student taking the highest average mark in all the courses in Anatomy of the second and third years.
4. One to the student taking the highest average mark in Surgery at the end of the fifth year.
5. One to the student taking the highest average mark in Medicine at the end of the fifth year.

PRIZES

The Jane Alexander Memorial Prizes. These are offered annually by Professor W. H. Alexander, in memory of his mother. The subjects are:

1. Latin Prose Composition and Latin Sight Translation (by special examination).
2. Geology, on the basis of the regular tests and examinations in Geology 51 and 52.

Prize in Botany, offered by Frank G. Bowers, Esq., for

the best collection, mounted and named, of plants in the Province; open to students who have attended Biology 1, and are entering one of the senior courses in Botany.

The Gordon Stanley Fife Memorial Prize, offered by Assistant-Professor A. L. Burt, in memory of his colleague and to be awarded to the graduating student who has taken the highest average mark in two or more Senior History Courses.

Prize in the History of Medicine, offered by Dr. H. C. Jamieson for an essay on some phase of the earlier development of Anatomy or Physiology.

The Harold Waldo Huestis Memorial Prize. A prize to the value of $25, to be awarded at the spring Convocation each year to the second year student, taking five full courses, who has obtained the highest mark in English of the second year, provided that the student has displayed marked proficiency in Eiglish composition.

The Bennett Prize. A first prize of $60 and a second prize of $40 open for competition to all students in the University and affiliated colleges except those of graduate standing. The award of these prizes is based upon:

(a) An essay on a prescribed body of material having to do with intelligent and effective Canadian citizenship.

(b) An examination (for which only those who have written the essays are eligible) on a part or all of the material described in section (a).

A representative committee of five members will be appointed to select the topic for the essay, to prescribe the reading, to set the examination and to act as judges in making the award.

For details for the current session apply to the Registrar.

Prizes in Mathematics, of the value of $10 each, offered by Dr. E. W. Sheldon and Mr. C. E. Race:

1 A prize open to students taking both Mathematics 1 and Mathematics 7, the award being based on the marks made in both subjects as well as in a special problem paper.

2. A prize for those students in Mathematics 1 who are not taking Mathematics 7, the award to be based on the marks in Mathematics 1 and in a special problem paper.

The Samuel Richard Hosford Memorial Prize. A prize of books valued at $15 to be awarded to the undergraduate student making the best record in English 53.

The Vallée French Prize. The Vallée French Prize in books, offered by Professor A. Vallée, of Laval University, in remembrance of the Honourable P. J. O. Chauveau, first Prime Minister of the Province of Quebec, open to undergraduates registered in French 1 and 3 and in French 31-32, and to be awarded on the results of a special examination.

Société du Parler Français Prize. A prize of books of the value of ten dollars, offered by the Société du Parler Français, to the student enrolled in French 2 and 4 who makes the best average record in the test and final examinations in these two courses.

Le Comité Permanent de la Langue Française Prize. A prize of books of the value of fifteen dollars, offered by Le Comité Permanent de la Langue Française, to the student making the best record in French 52.

Historical Club Prize. An annual prize of books of the value of fifteen dollars, offered by the Historical Club of the University of Alberta, to the student making the best record in History 2, provided such student receive first class standing on his year's work in History and pass in all other subjects.

The Engineering Institute of Canada offers four prizes yearly for papers presented by Science students in Canadian Universities. Particulars may be obtained from the head of the Department of Civil Engineering.

MEDALS

1. **The Governor-General's Gold Medal,** offered by His Excellency the Duke of Devonshire for the highest standing in the two senior years of the Faculty of Agriculture.

2. **The Charles Allan Stuart Gold Medal,** offered by the Hon. Mr. Justice Stuart, Chancellor of the University, and open for competition to students in the graduating year, reading for honours in the Department of Classics.

3. **The Alexander Cameron Rutherford Gold Medal,** offered by the Hon. A. C. Rutherford, LL.D., and open for competition to students in the graduating year, reading for honours in the Department of English.

4. **The Women's University Club Gold Medal,** offered by the Women's University Club of Edmonton, and awarded to that student in the graduating class of the Faculty of Arts and Sciences, general course, who takes the highest standing in the eight senior courses required in the third and fourth years, provided that an average mark of not less than seventy-five per cent. be obtained.

5. **The John A. McDougall Gold Medal,** offered by John A. McDougall, Esq., and awarded to the student taking the highest standing in the senior courses required in the last two years in Applied Science, provided, however, that an average mark of not less than seventy-five per cent. be obtained.

6. **The Lieutenant-Governor's Gold Medal** for the study of Shakespeare.

This medal is open for competition to students in any department of the University and in any one of the affiliated colleges, but not to students of graduate status. The award is based upon:

(a) An examination upon a small group of Shakespeare's plays, the titles to be announced in each spring for the ensuing year.

(a) An essay on a subject selected by a representative committee nominated by the President of the University.

For 1920-21, the plays under (a) are: Marlowe's "Tamburlaine," parts I and II, and Edward II; Shakespeare's "Henry VI," parts I, II and III, "Richard II", and "Richard III." The essay subject under (b) for 1920-21 is: "A comparison of Marlowe's "Edward II" and Shakespeare's "Richard II" in respect to plot, characterization, dramatic motive and style." For 1920-21 the committee consists of Professor Broadus, Chairman, Dean Kerr and Associate Professor Gordon.

8. **The Chief Justice's Gold Medal,** offered by the Honourable Horace Harvey, Chief Justice of Alberta, for highest standing in the work prescribed for the LL.B. degree.

9. **The James Ramsey Gold Medal,** offered by James Ramsey, Esq., M.L.A., and open to students in the graduating year, reading for honours in the Department of Mathematics.

GRADUATE FELLOWSHIP

THE LLOYD HARTNOLL BISHOP MEMORIAL FELLOWSHIP IN ENGLISH LITERATURE

A fellowship in English Literature has been founded by E. T. Bishop, Esq., to be known as the Lloyd Hartnoll Bishop Memorial Fellowship, and to be conferred on the graduating student who, during his undergraduate course, has shown unmistakable evidence of literary ability. The present emolument of this Fellowship is $200.00. Attention is called to the fact that this is a special award and not necessarily given each year.

THE RHODES SCHOLARSHIPS

In addition to the preceding Scholarships, Prizes and Medals which are under the control of the University of Alberta, there is also available for the Province of Alberta each year one Rhodes Scholarship. The permanent committee of selection for the Province of Alberta is as follows:

His Honor, the Lieutenant-Governor, Chairman.

The Honorable, the Chief Justice of the Province.

The Honorable, the Minister of Education.

The Chancellor of the University of Alberta.

The President of the University of Alberta.

Associate Professor Burt.

Secretary of the Committee, D. S. MacKenzie, Esq.

Candidates must be at least in their sophomore year at a recognized degree-granting university or college of Canada, and (if elected) must complete the work of that year before going into residence at Oxford. Competitive examinations are held under the auspices of the provincial committees. Each scholarship is tenable for three years, with a stipend of £300 per annum.

The following graduates of the University of Alberta have obtained this scholarship:

1913—Walters Farrel Dyde.

1915—Henry Grattan Nolan.

1917—Henry Alexander Dyde.

1918—Alan Burnside Harvey.

1919—Daniel Roland Michener.

1920—Walker Dunham.

UNIVERSITY REGULATIONS

FEES

I.—In Arts (including degree courses in Pharmacy and Household Economics):

(a) Undergraduates and Conditioned Students:

Instruction per session	$30.00
Students' Union (compulsory)	7.00

(b) Special Students

Registration Fee	2.00
Instruction per session per course	9.00
*Students' Union (Compulsory)	4.50

II.—In Applied Science:

(a) Undergraduates and Conditioned Students:

Instruction per session, first and second years	60.00
Instruction per session, in subsequent years	80.00
Students' Union (compulsory)	7.00

(b) Special Students:

Registration Fee	4.00
Instruction per session, per course	18.00
*Students' Union (compulsory)	4.50

III.—In Law:

Instruction per session	15.00
Examination Fee	15.00
*Students' Union (compulsory for students in attendance)	7.00

IV.—In Medicine and Dentistry:

Instruction per session, first year	75.00
Instruction per session, in subsequent years	100.00
Students' Union (compulsory)	7.00

V.—In Accountancy:

Instruction per session (Intermediate course)	25.00
Instruction per session (Final course)	50.00

VI.—Pharmacy Licensing Course:

Instruction per session, first year	50.00
Instruction per session, second year	75.00

VII.—In Agriculture (including the three year course in Household Economics):

(No fee for instruction for the present).

Students' Union (compulsory)	7.00

*Special students taking two full courses in the University have at registration the option of paying the full Union fee of $7.00, entitling them to full voting privileges.

VIII.—Medical service fee (required of all students) . . 3.00

IX.—Caution Money: Every student is required to deposit $5.00 caution money to cover damages done to furniture, apparatus, books, etc. This amount, less any necessary deductions, will be returned at the end of the session. Breakages exceeding this amount must be paid for before the student is permitted to take any examination.

X.—For Room and Board in the Residences:

Room, per month	12.00
Board, per month	†28.00
XI.—For viséing Certificates	2.00
XII.—For Certificate of Class Record	1.00
XIII.—For Supplemental Examinations: Each subject	3.00

XIV.—For Degrees (whether in course or ad eundem):

B.A.	5.00
B.Sc. in Arts	5.00
B.Sc. in Applied Science	10.00
B.Sc. in Applied Science	10.00
M.A.	10.00
M.Sc.	10.00
M.D.	10.00
LL.B.	10.00
B.S.A.	10.00
B.D.	10.00

REGISTRATION

All persons desiring to take courses in the University must register before being regularly enrolled. Registration may take place on and after the first day of March, and should be completed by the student in person on or before the 29th September, 1920. Students registering for the first time are requested to fill out an application form and submit it along with their certificates for consideration early in September or sooner if possible. Students applying for registration after the sixth day of October will be permtited to register only upon satisfying the Examinations Committee as to the validity of their reasons for late entrance, and as to their

†Subject to adjustment at opening of session or at any time during the session.

ability to proceed with their courses. Registration forms are to be filled in by the students and passed upon by the Registrar. Students are required to register for courses in which they are deficient before registering for other courses. The Faculty Councils reserve the right to adjust courses to meet the requirements of the time-table. When the programme of work for which a student is seeking registration has been approved, he may obtain his cards of admission at the Cashier's desk on payment of the proper fees. The student must present one of these cards to each of his instructors in order that his name may be placed upon the class record.

ATTENDANCE AND LATENESS

(a) Regular and punctual attendance at lectures and laboratory periods is required of each student. No student will be permitted to take the final examination in any course if his absences exceed ten periods in courses of three periods a week throughout the session, six periods in courses of two periods a week, or four periods in courses of one period a week.

(b) Students desiring to present excuses for absence on the ground of sickness or physical disability must, within one week of the date when that absence occurred or when the period of absence terminated, report their wish to the Registrar. This officer will promptly forward to the head of the University medical service the names of such students and the dates for which they claim exemption, and upon the endorsation of this claim by the proper authority such excuses will be filed to constitute part of the year's attendance record. No other form of excuse in regard to sickness or physical disability can be accepted.

Excuses for absence on the ground of domestic affliction must be presented to the Registrar direct and also within one week as above specified. Any other excuse which a student cares to present must be made within the same time limit to the Registrar in person, and the judgment of that officer upon its validity shall be final, subject to an appeal to the General Faculty Council.

Students who are late for any lecture or university exercise will be marked absent upon the records of the instructor in charge, unless at the end of the period in question they account satisfactorily to the instructor for their lateness, (in which case he will, without destroying the mark of absence,

indicate his acceptance of the excuse by making an X over the a). The decision of the instructor shall be final, subject only to an appeal to the Committee on Examinations.

(c) Students desiring leave of absence in any given course must communicate their desire to the Registrar. When such leave of absence has been granted the student is exempted from the operation of the attendance rule in section (a) above.

EXAMINATIONS

The University examinations are conducted by a University Examining Board appointed by the Senate and are under the direction of the Committee on Examinations.

1. Sessional Examinations.

(a) In Junior courses, as a rule, there are held two one-hour tests and one final examination. Fifteen per cent. of the whole credit in the course is assigned to each test. In English 1, however, and in the composition courses in French, German, Greek and Latin, tests are replaced by weekly exercises throughout the year, and to these exercises is assigned fifty per cent. of the whole credit in the course. The same arrangement exists with regard to junior courses in Mathematics and in Physics 1, where regular weekly exercises and short problem papers supplement the normal test papers.

(b) In certain senior courses the test examination method is followed; under this arrangement tests fall during the last week of lectures in December, and the third week in February, and fifteen per cent. of the whole credit in the course is assigned to each test. In other senior courses the assignment of thirty per cent. for term work is allotted to essays and practical examinations. In certain senior courses, subject to the approval of the General Faculty Council, term tests may be eliminated and the evaluation be on the final examination alone. Announcement is made at the beginning of the session as to the policy to be pursued by each department in this respect.

(c) In each course there is held a final examination. Seventy per cent. of the whole credit in the course is assigned to this examination, except in the case of certain junior courses referred to in paragraph (a) where the allotment is fifty per cent. only. The final examinations are held at the end of the session except in courses completed before Christmas; in such courses the final examinations are held during the

last week of lectures in December. In these courses the allotment of marks is seventy per cent. to the final examination and thirty per cent. to the test.

(d) When a student is absent from a test his mark for that test is zero. However, in case of illness or domestic affiliction an application for aegrotat standing (i.e., an allowance of 50 per cent. for a test missed by illness, if required for a pass) will be considered if such application is made immediately, in writing, to the Registrar.

(e) When intercollegiate games or conferences fall within any period of tests, members and officers of the teams and official delegates to conferences shall, at least one week before the beginning of the test period, make a request in writing to the Registrar in order that a readjustment of the time-table may be considered.

(f) In the publication of standing in the various courses, students are grouped by classes, the first class comprising those who have obtained eighty-five per cent. and over, the second class, those who have obtained between sixty-five and eighty-four per cent., and the third class, those who have obtained between fifty and sixty-four per cent. Fifty per cent. is the minimum for a pass.

2. Supplemental Examinations.

Supplemental examinations are conducted by the University in September of each year for students who have failed in any course the preceding year, but whose attendance record was satisfactory and whose final average was at least 30%. In reckoning standing for a supplemental examination, the credits already obtained in the tests will apply as described above under Sessional Examinations. Students neglecting to take or failing to pass the supplemental examination are required to repeat the course. A fee of $3 is charged for each of these supplemental examinations. For any special examination granted by a Faculty Council, to be held at any other time than the regular date for supplemental examinations a fee of $10 is charged for the first subject and $5 for each additional subject taken at the same time. All applications for permission to take supplemental examinations must be made in writing to the Registrar, and in the case of the regular supplemental examinations, must be received not later than August 14. Students in Agriculture may be admitted to supplemental examination at or about the time of the beginning of lectures in Agriculture at the regular fee of $3 per paper, except in cases where such supplementals

would involve the setting of more than one supplemental paper in any course, in which case the special fee of $10 shall apply.

Either by statutory provision or by agreement the examinations for the right to secure registration with the following professional societies in the Province of Alberta are under the control of the University:—

The Alberta Association of Architects.
The Alberta Land Surveyors' Association.
The Alberta Dental Association.
The College of Physicians and Surgeons of Alberta.
The Law Society of Alberta.
The Alberta Pharmaceutical Association.
The Institute of Chartered Accountants of Alberta.
The Association of Registered Nurses of Alberta.
The Society of Professional Engineers.

Information with respect to these examinations can be obtained on application to the Registrar.

DISCIPLINE

The Provost is the chief disciplinary officer of the University. He exercises general supervision over the conduct and welfare of the students, especially with regard to the students in residence.

By resolution of the Senate, a Committee on Student Affairs has been constituted as follows: "The President of the University, the Chancellor, the Chairman of the Board, the Provost, one member to be elected from each Faculty; two members to be elected from the Senate (these not to be Faculty representatives); the Adviser to women students; the president of the Students' Union; the president of the Athletic Society; the president of the Literary Department of the Students' Union; the President of the Wauneita Society; the editor-in-chief of "The Gateway;" three members to be elected from the Students' Council."

Under the same resolution, the duties of this Committee are:

(1) "to deal with
  (a) all matters referred to in the University Act, Article 41, subsections 18 and 19;;
  (b) all other matters relating to students' interests not therein referred to provided that in the event of any decision of this committee being

challenged by a non-student member, the decision must, to be valid, be ratified by a majority of the non-student members present; provided further that the right of appeal to the Senate against any such decision shall lie with the student members."

(2) For misconduct in the lecture-room, a student may be required by the instructor to leave the lecture-room. Persistent misconduct shall be reported to the President of the University, who may suspend from lectures pending the action of the Committee on Student Affairs.

(3) The following disciplinary ruling with regard to Athletics, submitted by the Faculty of Arts and Sciences and the Students' Union, was adopted by the Senate at its meeting of March 31st, 1911:

"Hereafter no persons except **bona fide** students who are in attendance at the University, or at one of the group of organized affiliated colleges carrying full work and whose scholastic record is certified as satisfactory by the Faculty Council of the University or by the respective colleges in which they are registered, shall be permitted to play on or be officers of any athletic team representing the University of Alberta."

By **bona-fide** students shall be understood:

(a) Students who are doing full undergraduate work in the University.

(b) Graduate students in attendance following any course of studies leading to a degree.

(c) Students in affiliated colleges, taking two full courses of university grade in the University.

(d) Other special students, being fully matriculated, who are taking two full courses of university grade in the University.

(4) In all cases of discipline involving offences against the student body, a student may appeal from decisions of that body or of any court constituted by it, to the Committee on Student Affairs.

(5) No student shall be permitted to continue in attendance at the University whose presence is for any cause deemed by the Committee on Student Affairs pdejudicial to the interests of the University.

(6) All regulations affecting the Students' Union and the Students' Court are subject to the approval of the Committee on Student Affairs.

RESIDENCE

Residential accommodation is provided in the University for four hundred students. Unless by special permission, all students not living with parents or guardians must reside in the University residences. Applications for exemption must be addressed to the Bursar of the University.

Students already in residence in the University will be permitted to retain the rooms they at present occupy or to select other available rooms provided they give notice to the Bursar at or before the close of the session.

Other rooms available will be assigned in order of application.

Rooms will not be reserved later than Monday, September 27th unless a deposit of $10.00 is in the hands of the Bursar by that date, and then only for two weeks.

The conduct of students in residence is subject to the authority of the House Committee, under the Board of Governors. This committee consists of the Provost, the Adviser to Women Students, two resident students from each of the University Halls; one representative of the women students in residence, and one non-resident student. A special subcommittee of the House Committee, under the direction of the Adviser to Women Students, will deal with matters relating solely to the women students. The resident members shall be fourth year or graduate students and shall be elected at the Students' Union elections in the spring preceding, by the students then in residence; the non-resident student member shall be elected at the same time by the members of the Students' Union. Any vacancy thereafter occurring shall be filled at a special election to be held within two weeks after

the occurrence of the said vacancy. Should the vacancy occur in the list of resident members, only students who have been in residence at least one year shall have the right to vote.

In all cases of discipline involving, or appearing to involve, the interests of the residences, a student may appeal from decisions of the Students' Union or of any student court to the House Committee.

MEDICAL SERVICE

All students registered in the University are required by the Students' Union to pay an annual fee of three dollars which is applied to the maintenance of a Medical Service Fund. This trust fund is administered by a committee consisting of the President of the University, the Provost, the Medical Director and the President of the Students' Union. In return for the fee paid, students are entitled to free medical treatment in case of illness or accident during the academic year. This includes provision for hospital charges, nursing, medicine, ambulance, physician's fees and the cost of minor operations. No provision, however, is made for cases of illness contracted before the beginning of the session, chronic diseases, major operations, or cases not immediately reported to the Medical Director. The Medical Director will in all cases decide if transference to the hospital is advisable and if so, what accommodation is necessary. He shall also decide who the attending physician shall be, and in the event of operation shall determine to what consideration the patient is entitled. The Medical Director also certifies to the Registrar with regard to exemptions from lectures or tests claimed by students on the ground of sickness.

STUDENT FUNCTIONS

All student functions are conducted under the general supervision of the Provost, and except by special permission are held in the University buildings. A written communication for permission to use a University Building for such purpose must be addressed to the Provost at least ten days before the date set for any function.

MEETINGS OF STUDENT SOCIETIES

Applications for the use of rooms for students' meetings must be made to the Registrar.

ACADEMIC COSTUME

By a resolution of the Senate, students of the senior years are required to wear gowns at all classes and lectures, and at such functions as may at any time be specified.

All gowns are to be of the customary Cambridge shape; i. e., for undergraduates a black stuff gown, not falling below the knee with round sleeve cut above elbow; for bachelors, a black stuff gown, falling below the knee with full sleeve cut to elbow and terminating in a point; for masters, a black stuff or silk gown falling below the knee with long sleeves with semi-circular cut at bottom.

Hoods are to be of the Oxford pattern, except those for the doctorate which shall be of the Cambridge form.

Bachelors' and masters' hoods are to be of a spruce green silk, with, for bachelors, a border (1½ inches each way); for masters, a full lining of the color distinctive of the faculty.

The faculty colours are:—	Green and
For Arts (including LL.D.)	White.
For Science	Light Green
For Law	Cream
For Medicine	Rose
For Agriculture	Pale Blue
For Education	Lilac
For Dentistry	Buff
For Pharmacy	Cinnamon
For Divinity	Purple
For Household Economics	Pink

Doctors' hoods are to be of scarlet silk, with a full lining of the respective faculty color, the M.D. hood to be of the master's pattern.

Doctors are entitled to wear a full dress scarlet robe faced with silk of the respective faculty color.

All caps are to be of the ordinary black trencher shape with black tassels, with a black velvet cap with gold cord for doctors' full dress.

For the convenience of students, the University maintains a book store where text-books prescribed in the University calendar may be obtained. Gowns, drawing material, athletic costumes and other accessories are also kept in stock.

Organization of Faculties

The University reserves the right to modify or withdraw for the session any of the courses here outlined.

FACULTY OF ARTS AND SCIENCES

The courses leading to the degrees of B.A., B.Sc. in Arts, B.Sc. in Household Economics, and B.Sc. in Pharmacy are divided into two groups—junior courses and senior courses. A course is to be regarded as designating normally three hours lectures or three hours lectures and three hours laboratory work in a subject each week throughout the session. The junior courses are designed for students in the first and second years, the senior courses for the third and fourth years. The junior courses are, in general, to be regarded as preparatory to the senior courses.

To obtain the degree of B.A. or B.Sc. in Arts, a student must obtain credit for at least eleven junior courses, eight senior courses, as detailed below, and the required work in Physical Education.

Students must continue two subjects throughout the third and fourth years.

Students may be exempted from two senior courses selected from Divisions A and B by presenting certificates of having satisfactorily completed an equivalent amount of work in one of the organized affiliated theological colleges.

A common First Year is laid down for all students in the Faculty of Arts and Sciences, but, thereafter, in accordance with a classification of studies into three general groups, courses are with certain restrictions largely elective.

Divisions of Courses of Instruction

A. Languages and Literatures.

B. Philosophy, History and Political Economy.

C. Mathematics and Natural Sciences.

In accordance with this scheme the Junior, Senior, Honours and Graduate courses leading to the degrees of B.A., B.Sc. in Arts, M.A. and M.Sc. are classified as follows:

DIVISION A **Lang. and Lit.**	DIVISION B **Philos., Hist. and Pol. Econ.**	DIVISION C. **Math. and Natural Science.**
Junior Courses*		
English: 1, 2.	Hist.: 1, 2, 3.	Biol.: 1.
Fr.: A, 1, 3, 4, 5.	Phil.: 1, 2.	Chem.: 1.
German: A, 1, 2, 3, 4.		xGeol.: 33.
Greek: 1, 2, 3, 4.	Pol. Ec.: 1.	Math.: 1, 3, 7,51.
Latin: A, 1, 2, 3, 4.		Physics: 1, 3a, 3b, 12.
		Zoology: 1, 2.
Senior Courses:		
English: 52, 53, 54, 55, 57, 58, 59, 60, 61.	Classical Phil.: 51.	Biochemistry: 61.
French: 51, 52, 53, 54.	Education: 51, 52.	Botany: 51, 52.
German: 51, 52, 53, 54.	Hist.: 53, 54, 55, 56, 57, 58, 61, 62, 63.	Chem.: 51, 52, 54, 55, 56, 57, 58.
Greek: 51, 52, 53, 54, 55, 56, 75.	Phil. 51, 52, 53, 54.	Geol.: 51, 53, 55, 57, 62.
Hebrew: 51, 52, 53.	Psychol.: 51, 52, 53, 54.	Math.: 53, 55, 56, 57, 58, 61, 62, 64.
Latin: 51, 52, 53, 54, 55, 58.	Pol. Ec.: 59, 64, 65, 66, 67.	Physics: 51, 52, 53, 54, 57.
	Architecture: 62.	Physiol.: 51, 60.
		H. Econ.: 51, 52.
Honours and Graduate Courses:		
English: 104, 105, 106, 107.	Hist.: 101, 102.	Bot.: 101, 102, 103.
French: 101, 102.	Philos.: 101, 102, 103.	Chem.: 101, 102, 103, 104.
German: 101, 102.	Pol. Ec.: 101, 102, 103, 104.	Geol.: 101, 102, 103.
Latin: 101, 102, 103, 104, 111, 112, 113.	Psychol.: 101, 102, 103, 104, 105.	Math.: 101, 102, 103, 104, 105, 106, 107, 108, 109, 110.
		Physics: 101, 102.

*And Phys. Ed.2.
xOpen only to candidates for Honours in Botany.

DEGREE OF B.A. OR B.SC. IN ARTS

FIRST YEAR

Subject	Course No.	Lect. hours	Pge.
English	Eng. 1	3	101
*French	French 1 and 3	3	122
*German	German 1 and 3	3	125
*Greek	Greek 1 and 5	3	97
History	History 1	3	109
*Latin	Latin 1 and 3	3	95
Mathematics	Mathematics 1	3	115
Physics	Physics 1	3†	130
Physical Education	Physical Education 1	..	136

†Three hours a week of laboratory work is also required.

*Any two of these are to be taken, but students presenting two sciences for matriculation must take a beginner's course language in the first year. See "A" Courses under departmental announcements.

B.A.—GENERAL COURSE

Second Year: 1. One course from Division A.
2. One course from Division B.
3. One course from Division C.
4. 5. *Two options.
6. Physical Education 2.

*Permissible to take two of the five courses in one department, but not in more than one.

Students entering with Grade XII standing must elect either Chemistry or Physics of the second year.

Third Year: 1. 2. Two courses from Division A.
3. One course from Division B.
4. *One option.

or

1. 2. Two courses from Division B.
3. One course from Division A.
4. *One option.

*Not more than two courses are to be selected from any one department.

Fourth Year: 1. 2. Two courses from Division A.
3. One course from Division B.
*4. One option.

or

1. 2. Two courses from Division B.
3. One course from Division A.
4. *One option.

*Not more than two courses are to be selected from any one department.

B.Sc. IN ARTS—GENERAL COURSE

The distinction between the B.A. and the B.Sc. in Arts becomes apparent in the second year. The student who in his second year chooses three courses from Division C is regarded as a candidate for the degree of B.Sc. in Arts.

Second Year: 1. One course from Division A.
2. One course from Division B.
3. 4. 5. *Three courses from Division C.
6. Physical Education 2.

*Not more than two courses are to be selected from any one department.

Third Year: 1. 2. Two courses from Division C.
3. One course from Division A or Division B.
4. *One option.

*This optional course to be related to one of the courses from Division C and to be approved by the Committee on Science studies.

Fourth Year: 1. 2. Two courses from Division C.
3. One course from Division A or Division B.
4. *One option.

*This optional course to be related to one of the courses from Division C and to be approved by the Committee on Science studies.

DEGREES WITH HONOURS IN THE FACULTY OF ARTS AND SCIENCES

The courses in honours differ from the general courses in that they are planned with a view to specialization, and are open only to students who have displayed ability in the junior courses. Students must have in the second year attained Class I in the subjects in which they propose to specialize, in order to be eligible to read for Honours.

Students who have attained Class II in a subject may, by permission of the Committee on Honours, in consultation with the head of the department concerned, be allowed to proceed to Honours. The third year must be entered without conditions in any subject. Students must begin their courses in Honours in the third year, and in order to graduate with Honours, must continue through the third and fourth years.

HONOURS COURSES—GENERAL REGULATIONS

1. In general, Honours are granted by departments rather than by subjects.

2. Students in the second year, looking forward to reading for Honours in the third and fourth years, are required to take courses in two divisions, but in the third and fourth years may confine their work to one division, but not to one department.

3. Students reading for an Honours degree are required to take regularly at least four courses in each of the two final years.

4. Students shall be regarded as candidates for the B.Sc. in Arts who restrict all courses to Division C in the third and fourth years, and as candidates for the B.A. when they select an option in each of the third and fourth years from a second division.

5. Students are not permitted to take more than one course in a given year in any subject in which they are not reading for Honours.

6. Honours students wishing to secure the academic standing requisite for the Specialist's Certificate, to be issued by the Department of Education, must conform to the requirements laid down by the Department.

HONOURS COURSES—DEPARTMENTAL REQUIREMENTS

Department of Botany

Second Year: Prerequisites to Honours in Botany.
Chem. 1; Botany 1; Geol. 33; one option from A or B; one option from Division C.

Third Year: Bot. 51; Geol. 51; Bot. 102; one option from a second division or 6 hrs practical Botany.

or

Bot. 51; Chem. 54; Bot. 102; one option from a second division or 6 hours practical Botany.

Fourth Year: Bot. 52; Chem. 52; Bot. 101; one option in a second division or 6 hrs practical Botany.

or

Bot. 52; Biochemistry 61; Bot. 103; one option from a second division or 6 hrs practical Botany.

Department of Chemistry

Second Year: Prerequisites to Honours in Chemistry.
Chemistry; Mathematics; Physics 6; one option (affiliated subject recommended); one option in second division.

Third Year: B.A. or B.Sc.
Chem. 101; Chem. 51; Analytical Chem; option.

or

B. Sc. only.
Chem. 103; Chem. 51; Mathematics; Physics.

Fourth Year:
Chem. 102; Chem. 54; two options.

or

Chem. 104; Chem. 52; Analytical Chem.; option in a second department.

Department of Classics

Second Year: Prerequisites to Honours in Classics.
Latin 2 and 4; Greek 2 and 4; Classical Philology 51; English, 1 course;; Philosophy or Economics, 1 course.

Third Year: Either Greek or Latin as a major: 2 courses (Latin 103, 53 or Greek 101, 56); Latin or Greek: 1 course (Latin 53, Greek 56) as a minor; one optional course.

Fourth Year: As for Third Year above. (Latin 103, 52 or Greek 101, 56); (Latin 52, Greek 56).

Note regarding the character of the senior Courses: Of the major courses, one, specifically an Honours course; the second, a general course in which Honours students will follow a different line of work from that followed by the general student. The minor course to be a general course treated as the second major above.

Department of English

Second Year: Prerequisites to Group A.
English 2; Classical Philology 51; History 2; a foreign language; an option.

or

Prerequisites to Group B.
English 2; Classical Philology 51; Latin or French; History 3; an option.

Third Year: Group A.
English 52, 53, 54, 55, 57, 58, 59, 60, 61 (one of these; not all given every year); English 106; two options.

Group B.
English 52, 53, 54, 55, 57, 58, 59, 60, 61 (one of these; not all given every year); English 104; two options.

Fourth Year: Group A.
English 52, 53, 54, 55, 57, 58, 59, 60, 61 (one of these; not all given every year) English 107; two options.

Group B.
English 52, 53, 54, 55, 57, 58, 59, 60, 61 (one of these; not all given every year); English 105; two options.

Department of History

Second Year: Prerequisites to Honours in History.
History 2; History 3; Economics (second year); English 2; one option.

Third Year: History 101; History 58, (1920-21); any one of the following: History 53, History 54, History 56; one option.

Fourth Year: History 102; History 57 (1921-22); any one of the following: History 53, History 54, History 56; one option.

Notes: 1. Students not possessing a fair reading knowledge of French or German are advised to take a Modern Language in the first and second years.

2. A half course in Political Economy (101) to be taken in either third or fourth years will be required in addition to the regular 12 hours of all Honours students in History.

Department of Mathematics

First Year: Prerequisites to Honours in Mathematics. Recommended: Math. 1, Advanced Section.

Second Year: Mathematics, two junior courses; Physics, one junior course; one option in A or B; one option.

Third Year: Mathematics, one Honours course and two senior courses; Physics or Pol. Ec., one senior course.

Fourth Year: Mathematics, one Honours course and two senior courses; one senior course (a Natural Science, Pol. Ec., Education, Philosophy, or Psychology).

Note:-Students not possessing a fair reading knowledge of French or German are advised to take a Modern Language in the first and and second years.

Department of Modern Languages

Second Year: Prerequisites to Honours in Modern Languages. French 5 and 4; German 2 and 4; English 2 or (for students intending to Major in French) Latin 2 and 4; History 2; Philosophy 1 or 2.

Third Year: French 52 and 54; German 51 or 52; English or one course from Division B.

or

German 51 and 52; French 52 or 54; English or one course from Division B.

Fourth Year: French 51 and 53; English or Phil. or Hist.; Conference Course 101 and 102.

or

German 53 and 54; English or Phil. or Hist.; Conference Course 101 or 102.

Notes: 1. Special prescribed summer readings will be allotted to all Honours students.

2. A thesis, the topic of which must be selected

before the close of the third year, will be required of all students reading for Honours. This thesis must be in the hands of the head of the department by March 31 of the graduating year.

Department of Philosophy

Second Year: Prerequisites to Honours in Philosophy.
Philosophy 1 or Philosophy 2; option in a second division; 3 free options.

Third Year: Phil., 2 courses; Psychol., 1 course; option in a second department.

or

Psychol., 2 courses; Phil., 1 course; option in a second department.

Fourth Year: Phil., 2 courses; Psychol., 1 course; option in a second department.

or

Psychol., 2 courses; Philos., 1 course; option in a second department.

Note:-Honours students in the Department of Philosophy will meet one hour per week to discuss problems of contemporary philosophy.

Department of Political Economy

Second Year: Prerequisites to Honours in Political Economy.
General Option. Principles of P. E.; Psychology; History; two options.

or

Industrial Option. Principles of P.E.; Psychology; two options (Geology 33, Biology, Chemistry, Physics); one option in the language group.

or

Financial Option. Principles of P. E.; Psychology; Calculus; two options.

Third Year: Introduction to Political Theory; Pol. Ec., two courses; Const. Hist., one course; one option.

or

Introduction to Political Theory; Pol. Ec., two courses; one science course in sequence with second year; one language course in sequence with second year.

or

Introduction to Political Theory; Pol. Ec., two courses; Statistics; one course in language group in sequence with second year.

Fourth Year: Modern Pol. Theory; Pol. Ec., two courses; Con. Hist., one course; one option.

or

Accountancy; Pol. Ec., two courses; one Science course in sequence with the third year; one language course in sequence with the third year.

or

Accountancy; Pol. Ec., two courses; Math. theory of Finance; one course in language group in sequence with third year.

Note: A Research Problem will be assigned in the second term of the final year for the students in all groups, the problem to be worked over in direct conference with the instructor.

Department of Physics

Second Year: Prerequisites to Honours in Physics. Physics; Math. 51; Math. 11; Chem. 1; one option from a second division.

Third Year: Physics, two courses; Math. 52; one option.

Fourth Year: Physics, two courses; one option in Science Division; one option.

THE DEGREE OF B.Sc. IN HOUSEHOLD ECONOMICS

Junior Courses.

First Year: As for B.A., except that only one language is to be taken and Household Economics 1.

Second Year: One course from Division A; *Chemistry 1; Biology; Political Ec.; Household Ec. 2 and 3.
*Chemistry 2 in 1920-21.

Senior Courses.

Third Year: One course from Division A or B; Organic Chemistry; Physiology; Bacteriology 1, first term; Bacteriology 52, sec. term; Household Ec.

Fourth Year: One course from Division A or B; Biochemistry; Food Chemistry; Hygiene and Sanitation; Household Ec.
Details will appear in next calendar.

THE DEGREE OF B.Sc. IN PHARMACY

For details of courses see p. 75.

COMBINED COURSES

Courses of study have been arranged associating the courses for the B.A. degree with those leading to degrees in the other Faculties. Details of these Combined Courses will be found in the statements of the associated Faculties; for B.A., B.Sc. on p. 62, for B.A., M.D. on p. 67, for B.A., LL.B. on p. 67, and for B.A., B.S.A. on p. 72.

FACULTY OF APPLIED SCIENCE

The University offers two groups of courses in Applied Science leading to the B.Sc. degree; one in Engineering (Civil, Electrical or Mining); the other in Architecture.

It is recommended that students who intend to enter the Faculty of Applied Science should, if at all possible, take the Combined Course in Arts and Applied Science; in which case the students cover all the work of the four years' curriculum in Applied Science and in addition secure in the Arts subjects a broader foundation. For the outline of this Combined Course refer to p. 62.

THE B.Sc. DEGREE IN ENGINEERING

The requirements of the first and second years of the three divisions of Engineering groups are uniform, and are designed to give the general foundation in mathematics and physical science necessary to specialization in the various branches of Engineering in the last two years. In this group a course in French or German is also offered, specially adapted to an Applied Science curriculum.

Students of this University who may wish to study branches of Engineering in which the equipment for third and fourth year work has not been completed, may finish their course at certain universities of Eastern Canada, where, according to arrangement, they will be admitted **ad eundem statum.**

Junior Courses.

FIRST YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Science & Engineering		..	..	..	..	
Mechanical Drawing	Draw. 2	..	3	..	3	99
Descriptive Geometry	Draw. 4	1	3	1	3	100
English	English 1	3	..	3	..	101
*French or German	F. or G. 41	2	..	2	..	123
History	Hist. 1	3	..	3	..	109
Elem. Math. Anal.	Math. 21	6	..	6	..	116
Elementary Mechanics	Math. 22	2	3	2	3	116
Physics	Phys. 3	3	3	3	3	130
Physical Education	Phys. Ed. 1	..	3	..	3	136
Survey School	C. E. 6	..	..	..	..	91

*The language taken in matriculation.

SECOND YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Chemistry	Chem. 1	3	3	3	3	87
Applied Mechanics	C. E. 1	..	..	3	..	91
Mapping	C. E. 2	..	3	..	..	91
Materials of Const.	C. E. 3	2	..	2	..	93
Mechanical Drawing	Draw. 5	..	3	..	3	100
*French or German	F. or G. 42	2	..	2	..	123
Geology	Geo. 32	2	..	..	3	107
Calculus & Mechanics	Math. 25 & 26	6	..	6	..	116
Physics	Phys. 6	3	3	3	3	130
Physical Education	Phys. Ed. 2	3	..	3	..	136
Survey School	C. E. 7	..	..	..	..	92

*The language taken in the first year.

Senior Courses

A—CIVIL ENGINEERING*

THIRD YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Hydraulics	C. E. 55	..	..	3	3	92
App. Thermodynamics	C. E. 57	2	..	2	3	93
Structural Design	C. E. 62	1	..	1	3	93
Applied Mechanics	C. E. 67	3	3	2	..	94
Applied Electricity	C. E. 73	2	3	2	..	95
Geology	Geol. 52	3	3	..	..	108
Astronomy	Math. 53	3	..	3	..	117
Graphical & Numerical Methods	Math. 63	..	..	2	3	118
Economics	Pol. Ec. 60	2	..	2	..	..

*Students in Civil Engineering are strongly advised to work in a drafting office during one summer, in order to gain necessary practical experience.

FOURTH YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Foundations	C. E. 52	1	..	1	..	92
Theory of Structures	C. E. 53	3	..	3	..	92
Water Supp. & Sew. Disp.	C. E. 59	2	3	2	3	93
Structural Design	C. E. 63	2	3	2	3	94
Testing Lab.	C. E. 66	..	3	..	3	94
Land Transportation	C. E. 74	3	..	3	..	94
San. Science	Hyg. 52	1	..	..	..	85
Econ. & Bus. Law	Pol.Ec.68 or 69	..	..	2	..	133
Optional subject		..	..	..	..	

B—ELECTRICAL ENGINEERING

THIRD YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
App. Thermodynamics	C. E. 57	2	..	2	3	93
Applied Mechanics	C. E. 67	3	3	2	..	94
Direct Current	E. E. 51 & 52	3	6	3	6	100
Mechanics of Machines	E. E. 55	2	1	2	1	101
Machine Design	E. E. 54	2	..	2	3	100
Mech. Drawing	E. E. 56	..	..	..	3	101
Advanced Calculus	Math. 57	2	..	2	..	117
Electrical Physics	Phys. 53	3	3	3	3	131
Economics	Pol. Ec. 60	2	..	2	..	..

FOURTH YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Hydraulics	C. E. 55	..	..	3	3	92
Power Dist., Light and Tract.	E. E. 58	2	..	2	..	101
Alternating Currents	E. E. 59	3	6	3	6	101
Elec. Applic. & design	E. E. 60	2	3	2	3	101
Telegraphy and Telephony	E. E. 61	2	..	..	..	101
Electro-Chem. & Met.	E. E. 62	2	..	2	..	101
Machine Design	E. E. 63	2	..	..	..	101
San. Science	Hyg. 52	1	..	..	..	85
Econ. & Bus. Law	Pol.Ec.68 or 69	..	..	2	..	133

C—MINING ENGINEERING

THIRD YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Inorganic Chemistry	Chem. 55	2	6	2	6	89
Hydraulics	C. E. 55	..	..	3	3	92
†Thermodynamics	C. E. 57	2	..	2	3	93
Applied Mechanics	C. E. 67	2	..	..	..	94
Petrology	Geol. 52	3	3	..	..	108
Mineralogy	Geol. 54	2	3	1	3	108
Coal Dressing	M. E. 51	..	..	2	3	119
Ore Dressing	M. E. 52	..	..	2	3	119
Fuel Analysis	M. E. 53	..	3	..	3	119
Fire Assaying	M. E. 54	1	3	..	3	120
Metallurgy and Coke	M. E. 55	2	..	..	..	120
Principles of Mining	M. E. 56	1	3*	1	..	120
Mine Survey school	M. E. 57	..	..	..	..	120
Economics	Pol. Ec. 60	2	..	2	..	120

*Coal mining students only.

†Given as C.E. 57, session of 1920-21, for coal mining students.

M.E. 51, 53, 55 and 56 required of students taking Coal Mining.

Chem. 55, M.E. 52, 54, 55, 56 required of students taking Metal Mining.

FOURTH YEAR

Subject	Course No.	First half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Quant. Analysis	Chem. 56	2	6	2	6	89
App. Thermodynamics	C. E. 57	2	. .	2	3	93
App. Electricity	C. E. 73	2	3	2	. .	95
Mineral Deposits	Geol. 58	3	. .	3	3	108
Sanitary Science	Hyg. 52	1	. .	. .	. .	85
Metallurgy	M. E. 58	2	3	2	. .	120
Coal Mining	M. E. 59	2	3	2	. .	120
Metal Mining	M. E. 60	2	. .	2	. .	120
Mining Machinery . .	M. E. 61	. .	. .	2	. .	121
Ventilation	M. E. 62	. .	. .	2	. .	121
Ore Dressing	M. E. 63	2	3	. .	. .	121
Mine Design	M. E. 64	. .	. .	. .	3	121
Oil, Gas & Wat. Anal.	M. E. 65	. .	6	. .	. .	121
Econ. & Bus. Law . .	Pol.Ec.68 or 69	. .	. .	2	. .	133

C.E. 57 Laboratory course for Coal Mining students only.

Chem. 56, M.E. 57, 59, 60, 62 required of students taking Metal Mining.

M.E. 58, 60, 61, 64 required of students taking Coal Mining.

THE B.Sc. DEGREE IN ARCHITECTURE

The course of study in Architecture of the first year includes a number of subjects in the Faculty of Arts and Sciences, some from the Engineering course with Architectural and Freehand Drawing special to the Architectural Course. In succeeding years scientific and technical subjects are studied to the extent required in the practice of Architecture. Throughout the course increasing attention is given to Architectural design.

THE B.Sc. DEGREE IN ARCHITECTURE

Junior Courses.

FIRST YEAR

Subject	Course No.	First half Lect.	Lab.	Sec. Half Lect.	Lab.	Pge.
Arch. Drawing	Draw. 1	..	6	..	6	99
Freehand Drawing	Draw. 3	..	3	..	3	100
Descriptive Geometry	Draw. 4	1	3	1	3	100
English	English 1	3	..	3	..	102
French	French 41	2	..	2	..	123
History	History 1	3	..	3	..	109
Gen. Elem. Math.	Math. 1 & 2	6	..	6	..	115
Physics	Phys. 1	3	3	3	3	130
Physical Education	Phys. Ed. 1	..	3	..	3	136
Survey School	C. E. 6	..	..	..	..	91

SECOND YEAR

Subject	Course No.	First half Lect.	Lab.	Sec. Half Lect.	Lab.	Pge.
Arch. Drawing	Arch. 2	..	3	..	3	82
Arch. Design	Arch. 3	..	6	..	9	82
History of Arch.	Arch. 4	2	..	2	..	83
Building Const.	Arch. 5	..	6	..	6	83
Decorative Arts	Arch. 6	..	4	..	4	83
Mapping	C. E. 2	..	3	..	..	91
Classical Philology	Cl. Phil. 51	3	..	3	..	97
French	French 42	2	..	2	..	123
Elem. Math. Anal.	Math. 21	6	..	6	..	116
Physical Education	Phys. Ed. 2	..	3	..	3	136

Senior Courses

THIRD YEAR

Subject	Course No.	First half Lect.	Lab.	Sec. Half Lect.	Lab.	Pge.
Arch. Drawing	Arch. 51	..	3	..	3	83
Arch. Design	Arch. 52	1	9	1	9	83
History of Arch.	Arch. 54 or 55	2	..	2	..	83
Decorative Arts	Arch. 56	1	3	1	3	84
Specifications	Arch. 58	..	..	1	..	84
Building Construction	Arch. 61	..	6	..	6	84
Mat. of Construction	C. E. 3	2	..	2	..	91
Applied Mechanics	C. E. 71	2	3	2	..	94
Sanitary Science	Hyg. 52	1	..	..	..	85

FOURTH YEAR

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Architectural Design . .	Arch. 52	1	15	1	15	83
History of Arch.	Arch. 55	2	. .	2	. .	83
Decorative Arts	Arch. 57	1	3	1	3	84
Ventilation & Heating	Arch. 60	1	. .	. .	. .	84
Foundations	C. E. 52	1	. .	1	. .	92
Structural Design . . .	C. E. 62	1	. .	1	3	93
Testing Lab.	C. E. 66	. .	3	. .	3	94

COMBINED COURSES

I—COMBINED COURSE LEADING TO THE DEGREES OF B.A. AND B.Sc. IN ENGINEERING

First Year: English 1.
History 1.
Mathematics 1.
Physics 1.
French 1 and 3, German 1 and 3, Latin 1 and 3, Greek 1 and 3, two; one of which must be a modern language.
Physical Education 1.

Second Year: One course from Division A (see p. 47).
One course from Division B (see p. 47).
One course from Division C (see p. 47).
Mathematics 22 (Mechanics).
Drawing 2 and 4.
Physical Education 2.

Third Year: Two courses from Divisions A and B (see
Physics 3 (Heat, Light and Sound).
Mathematics 21 (Elementary Mathematical Analysis, 6 hours.
Science and Engineering.
C.E. 6 (Survey School).
The courses of years IV, V, and VI are identical with those of years II, III, and IV in Engineering.
The B.A. degree may be granted at the end of the fourth year.

II—COMBINED COURSE LEADING TO THE DEGREES OF B.A. AND B.Sc. IN ARCHITECTURE

First Year: As in Section I, except that French 1 and 3 is obligatory.

Second Year: One course from Division A (see p. 47).
One course from Division B (see p. 47).
One course from Division C (see p. 47).
One course from A, B, or C.
Drawing 3 and 4 (Freehand and Descriptive Geometry).

Third Year: Two courses from Division A and one from Division B, or two courses from Division B and one from Division A (see p. 47).
One course from Division A or B or C.
Drawing 1 (Arch. Drawing, 3 hrs).
C.E. 6 (Survey School).
The courses of years IV, V, and VI are identical with those of years II, III, and IV in Architecture.
The B.A. degree may be granted at the end of the fourth year.

FACULTY OF MEDICINE

Two courses are offered, one leading to the degree of Doctor of Medicine, the other to the degree of Doctor of Dental Surgery.

THE DEGREE OF DOCTOR OF MEDICINE

The course leading to this degree is arranged on the basis of a six-year curriculum, of which the work of the first four years is now offered.

In accordance with the recent decisions of McGill University and the University of Toronto to extend the course for the degree of Doctor of Medicine from five to six years, the University of Alberta by adding another year to the course, commencing with the session 1919-20, readjusted the medical curriculum to correspond with this extension. The "returned soldier" class of 1924 and the class of 1923 will complete the first three years of the medical course on the basis of the previous five-year curriculum.

Arrangements have been made, by which, any student

who has completed the first four years of the curriculum for this degree in the University of Alberta, may receive equivalent standing in the medical curriculum of McGill University or in the University of Toronto, and may then proceed to the degree by completing the final two years of the medical course in either of these universities.

The attention of students is called to a Combined Course leading to the degrees of B.A., M.D., details of which are given on p. 67.

Junior Courses.

FIRST YEAR

(Six-year course)

Subject	Course No.	First half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Biology	Biol. 1	3	3	..	..	85
Zoology	Zoology 1	2	4	2	4	87
Chemistry	Chem. 2	3	6	3	6	87
Physics	Phys. 11	3	3	3	3	130
French or German	French 41 or Ger. 41	2	..	2	..	123
Mathematics	Math. 32	..	..	2	..	116
English	Eng. 1	2	..	2	..	101
Physical Education	Phys. Ed. 1	..	..	..	..	136

SECOND YEAR

(Five-year course)

Subject	Course No.	First half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Gross Anatomy	Anat. 1	2	15	..	..	79
Gross Anatomy	Anat. 2	..	..	2	8	80
Histology	Anat. 10	3	4	..	..	80
Splanchnology	Anat. 12	..	..	2	4	81
Embryology	Anat. 14	..	..	1	3	81
Bacteriology	Bact. 1	1	3	..	..	84
Materia Medica	Mat. Med. 3	1	..	1	..	114
Physiology	Physiology 1	2	2	2	4	131
Biochemistry	Biochem. 1	3	4	3	7	132
Physical Education	Phys. Ed. 2	..	..	..	..	136

SECOND YEAR

(Six-year course)

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Gross Anatomy	Anat. 1	2	15	..	..	79
Gross Anatomy	Anat. 2	..	..	2	8	80
Histology	Anat. 10	3	4	..	..	80
Splanchnology	Anat. 12	..	..	2	4	81
Embryology (Human)	Anat. 14	..	..	1	3	81
Embryology	Zoology 2	2	3	..	..	87
Organic Chemistry*		..	..	..	..	
Bacteriology	Bact. 1	1	3	..	..	84
Materia Medica	Mat. Med. 3	1	..	1	..	114
Physical Education	Phys. Ed. 2	..	..	..	..	136

*Not given in this course 1920-21.

Senior Courses

THIRD YEAR

(Five-year course)

Subject	Course No.	First half Lect.	First half Lab.	Sec. Half Lect.	Sec. Half Lab.	Pge.
Gross Anatomy	Anat. 53 & 54	2	8	1	6	81
Neurology	Anat. 60	2	6	..	..	81
Bacteriology	Bact. 51	1	2	1	2	85
Biochemistry	Biochem. 51	1	2	1	3	132
Pharmacology	Pharm. 51	1	2	1	3	126
Pharmacy	Pharm. 3	..	..	1	..	127
Physiology	Physiol. 51	3	2	3	4	131
Pathology	Pathology 51	3	1	2	4	126
Clinical Medicine	Clin. Med. 51	..	4	..	4	98
Surgery	Surgery 51	1	2	1	2	135
Psychology	Psych. 53	1	..	1	..	129
Clinical Laboratory	Clin. Lab. 52	..	..	..	4	98

The subjects for the third and fourth years of the six-year course will be issued when the details are completed.

THE DEGREE OF DOCTOR OF DENTAL SURGERY

The course leading to this degree is arranged on the basis of a four-year curriculum of which the work of the first two years is offered.

Undergraduates who have completed the first and second years of the course in Dentistry in this University will be admitted to the third year at the Royal College of Dental Surgeons of Ontario and the Dental Department of the University of Toronto, under such conditions as shall permit them to graduate ordinarily in two years and receive the degree of Doctor of Dental Surgery. Similar arrangements are available at McGill University.

FIRST YEAR

Subject	Course No.	First half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Gross Anatomy	Anat. 6	..	..	1	3	80
Biology	Biol. 1	3	3	..	..	85
Zoology	Zoology 1	2	4	2	4	87
Chemistry	Chem. 2	3	6	3	6	87
Physics	Physics 11	3	3	3	3	130
Prosthetic Dentistry	Dent. 1	1	3	1	3	98
Operative Dentistry	Dent. 2	1	2	1	2	99
Physical Education	Phys. Ed. 1	..	..	..	..	136

SECOND YEAR

Subject	Course No.	First half		Sec. Half		Pge.
		Lect.	Lab.	Lect.	Lab.	
Gross Anatomy	Anat. 1	2	12	..	..	80
Gross Anatomy	Anat. 3	..	..	2	4	80
Histology	Anat. 11	3	3	..	..	81
Splanchnology	Anat. 13	..	..	2	3	81
Embryology	Anat. 15	..	..	1	2	81
Materia Medica	Mat. Med 3	1	..	1	..	114
Physiology	Physiol. 1	2	2	2	4	131
Organic Chemistry	Chem. 3	3	..	3	6	88
Prosthetic Dentistry	Dent. 3	1	3	1	3	99
Operative Dentistry	Dent. 4	1	2	1	2	99
Physical Education	Phys. Ed. 2	..	..	..	..	136

THE COMBINED COURSE LEADING TO THE DEGREES OF B.A. AND M.D.

First Year:
1. English 1.
2. History 1.
3. Mathematics 1.
4. Physics 11.
5 and 6. French, German, Latin, Greek: two to be taken of which one must be a modern language.
7. Physical Education 1.

Second Year:
1. An option in Group A.
2. An option in Group B. (Phil. 1 or 2 recommended.
3. Zoology 1.
4. Chemistry 1.
5. Biology 1.
6. Physical Education 2.

Third Year:
1: Chemistry 51 or 55.
2. Chemistry 52.
3 and 4. Two senior courses from Group A or B, or one senior course from Group A and one from Group B.

Fourth Year:
The subjects of Second Year Medicine.
The subjects of years V, VI, VII, and VIII, are identical with those of years IV, V, and VI, in Medicine.
The B.A. degree may be granted at the end of the fourth year.

FACULTY OF LAW
UNDERGRADUATE DEGREES IN COURSE
THE LL.B. DEGREE

In the Faculty of Law courses are offered leading to the degree of LL.B.

The course of study leading to the degree covers a period of four years. It is arranged to meet the requirements of the Alberta Law Society for students-at-law, providing along with these requirements such additional courses as are necessary to obtain the degree.

A Combined Course is also offered leading to the degrees of B.A., LL.B.

A special bulletin giving details of courses can be obtained on application to the Registrar.

FACULTY OF AGRICULTURE

In the Faculty of Agriculture courses are offered leading to the degree of B.S.A., and of B.H.Ec. For the B.S.A. degree two courses are offered, one a three-year course for those entering the University on the completion of the two years' course in the Provincial Schools of Agriculture, the other a four-year course for those entering with Matriculation standing.

Students must have had at least ten months of practical work in Agriculture before the degree can be granted.

The attention of students is called to a Combined Course leading to the degrees of B.A., B.S.A., details of which are given on p. 72.

THE DEGREE OF B.S.A.

I—THREE YEAR COURSE

For those entering from the Provincial Schools of Agriculture.

Junior Courses.

FIRST YEAR

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry	A. H. 1		4	80
Botany	Bot. 3	2	3	85
Chemistry	Chem. 1	3	3	87
Crop Production	F. H. 1	2	2	105
English	Eng. 4	3	..	102
Geology	Geol. 31	2*	..	107
History of Agriculture	H. of A. 1	1	..	112
Mathematics	Math. 31	3	..	116
Physics	Phys. 31	3	3	130
Soils	Soils 1	2**	4**	134
Physical Education	Phys. Ed. 1	..	..	136

*First half session. **Second half session.

SECOND YEAR

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry . .	A. H. 3	1	2	80
Animal Husbandry . .	A. H. 4	2	2	80
Bacteriology	Bact. 2	1*	3*	85
Botany	Bot. 4	1**	2**	86
Chemistry	Chem. 4	3	3	88
English	Eng. 3	1	. .	102
Farm Mechanics . . .	F. M. 2	1	2	105
Field Husbandry . . .	F. H. 2	2	2	105
History of Agriculture	H. of A. 2	1	. .	112
Horticulture	Hort. 1	2	. .	112
Mathematics	Math. 33	3**	. .	117
Economics	Pol. Ec. 2	2*	. .	132
Soils	Soils 2	2**	4**	134
Veterinary Science . .	V. Sc. 2	1	. .	135
Physical Education . .	Phys. Ed. 2	. .	. .	136

*First half session. **Second half session.

The subjects of the final year are so arranged as to give (A) an Animal Husbandry option, (b) a Field Husbandry option, and (C) a Soils option.

Senior Course
A—ANIMAL HUSBANDRY OPTION

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry . .	A. H. 52	2	. .	80
Animal Husbandry . .	A. H. 53	2*	. .	80
Animal Husbandry . .	A. H. 54	2**	2**	80
Animal Husbandry . .	A. H. 55	. .	2*	80
Animal Husbandry . .	A. H. 56	. .	2	80
Thesis	A. H. 57	1**	. .	81
Chemistry	Chem. 57	3*	3*	88
Dairying	Dairy. 51	1	3	. .
Public Speaking . . .	Eng. 54	1	. .	102
Field Husbandry . . .	F. H. 55	. .	2	106
Farm Mechanics . . .	F. M. 51	1	2	105
History of Agriculture	H. of A. 51	1	. .	112
Economics	Pol. Ec. 70	2**	. .	133
Poultry	Plty. 51	1	2	. .
Soils	Soils 55	2**	. .	134
Veterinary Science . .	V. Sc. 51	1	. .	135

*First half session. **Second half session.

Senior Course

B—FIELD HUSBANDRY OPTION

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry	A. H. 52	2	..	80
Bacteriology	Bact. 52	1	3	85
Botany	Bot. 54	2	2*	..
Chemistry	Chem. 57	3	3	89
English	Eng. 54	1	..	102
Farm Mechanics	F. M. 51	1	2	105
Field Husbandry	F. H. 52	3*	..	106
Field Husbandry	F. H. 53	1*	..	106
Field Husbandry	F. H. 54	2**	..	106
Field Husbandry	F. H. 55	..	2	106
Field Husbandry	F. H. 56	1**	..	107
Field Husbandry	F. H. 57	1	..	107
History of Agriculture	H. of A. 51	1	..	112
Economics	Pol. Ec. 70	2**	..	133
Soils	Soils 53	2*	4*	134
Soils	Soils 54	2**	3**	134

*First half session. **Second half session.

Senior Course

C—SOILS OPTION

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry	A. H. 53	2*	..	80
Bacteriology	Bact. 52	1**	2**	85
Chemistry	Chem. 58	3	3	90
Dairying	Dairy. 51	1	3	..
Public Speaking	Eng. 54	1	..	102
Field Husbandry	F. H. 52	3**	..	106
Field Husbandry	F. H. 53	1**	..	106
Farm Mechanics	F. M. 51	1	2	105
History of Agriculture	H. of A. 51	1	..	112
Economics	Pol. Ec. 70	2**	..	133
Poultry	Plty. 51	1	2	..
Advanced Fertility	Soils 53	2*	4*	134
Soil Bacteriology	Soils 54	2**	3**	134
Irrigation & Drainage	Soils 55	2**	..	135
Veterinary Science	V. Sc. 51	1	..	135

*First half session. **Second half session.

2—FOUR-YEAR COURSE

For Students entering with Matriculation Standing

FIRST YEAR

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry	A. H. 1	..	4	80
Agricultural Botany	Bot. 3	2	3	85
Chemistry	Chem. 1	3	3	87
English	Eng. 1	3	..	102
Field Husbandry	F. H. 1	2	2	105
Farm Mechanics	F. Mech. 1	..	4	105
Mathematics	Math. 1	3	..	115
Physical Education	Phys. Ed. 1	..	..	136

SECOND YEAR

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry	A. H. 3	1	4	80
Bacteriology	Bact. 2	2	3	85
Chemistry	Chem. 4	3	3*6**	88
Dairying	Dairy. 1	2**	2**	..
Farm Crops—(Advanced)	F. H. 2	2	2	105
History of Agriculture	H. of A	1	..	112
Physics	Ph. 1	3	3	130
Poultry	Plty. 1	2*	2*	..
Veterinary Science	V. Sc. 1	1	..	135
Physical Education	Phys. Ed. 2	..	..	136

*First half session. **Second half session.

THIRD YEAR

Subject	Course No.	Lecture hours	Lab. hours	Pge.
Animal Husbandry . .	A. H. 51	2	2	80
†Botany	Bot. 52	3	. .	86
‡Embryology	Embry. 51	2*	3*	. .
Field Husbandry	F. H. 51	2	2	106
History of Agriculture	H. of A. 51	1	. .	112
Horticulture	Hort. 51	2	2	112
Economics	Econ. 60	2	. .	. .
Soils	Soils 51 & 52	2	4	134
‡Zoology	Zool. 52	2	. .	. .
Economic Entomology	Zool. 51	2*	3*	. .

*First half session. **Second half session.
†For F.H. and Soils students. ‡For A.H. students.
Details of fourth year will be given in next year's calendar.

COMBINED COURSE IN ARTS AND AGRICULTURE

First Year:
English 1.
History 1.
Mathematics 1.
Physics 1.
Latin, Greek, French, German: two of these, one of which must be a modern language.
Physical Education 1.

Second Year:
One course from Division A.
One course from Division B.
Two courses from Division C (Biol. 1 and Chem. 1).
One course from Division A or B.
Physical Education 2.

Third Year:
Two courses from Division A.
One course from Division B.
One course from Division C (Geology).
or
One course from Division A.
Two courses from Division B.
One course from Division C (Geology).

Fourth Year:
Animal Husbandry 1.
Botany 52.
Chemistry 1.
Field Husbandry 1.
History of Agriculture 1.

Mathematics 62.
Physics (Electricity and Magnetism or Heat, Light and Sound).
Soils 1.

The degree of B.A. may be granted on successful completion of the four years mentioned above.

Fifth Year: Animal Husbandry 3 and 4.
Bacteriology 2.
English 3.
Farm Mechanics 2.
Field Husbandry 2.
History of Agriculture 2.
Horticulture 1.
Political Economy 2.
Soils 2.
Veterinary Science 2.

Sixth Year: As for the final year in Agriculture.

THE DEGREE OF B.H.Ec.

For those entering from the Provincial School of Agriculture.
(N.B.—For entrance requirements see p. 27.

Junior Courses.

First Year: English 1.
History 1.
Math. 31 or 1.
Chemistry 1.
Physics 31 or 1.
H. Ec. 31.
H.Ec. 1 (a).
Physical Education 1.

Second Year: One course from Division A or B (see p. 47).
Chemistry 1.
Biology.
Bacteriology 1 (1st term).
Bacteriology 52 (2nd term).
H.Ec. 2 and 3.
Physical Education 2.

Senior Course.

Third Year *One course from Division A or B (see p. 47).
Biochemistry.
*Food Chemistry.
Hygiene and Sanitation.
H.Ec. 56, 57, 58, 59.

*In session 1920-21, two courses from Division A or B must be taken instead of one course from Division A or B and Food Chemistry.

SCHOOL OF PHARMACY

The University offers two courses in Pharmacy, one covering the requirements for registration as Licentiate of the Alberta Pharmaceutical Association; the other leading to the degree of B.Sc. in Pharmacy. The former covers two years, and the latter four years of academic work. Apprenticeship service is not required before entering upon the course for the degree.

Such actual experience as shall be required before registration may be secured by service in the employ of a duly qualified pharmacist during the two senior years of the course or upon its completion. The period of such service shall be not less than twelve months in the aggregate.

A special bulletin of the School of Pharmacy may be obtained on application to the Registrar of the University.

I—THE LICENTIATE COURSE

FIRST YEAR

Subject	Course No.	Lect. hours	Lab. hours	Pge.
Botany	Biol. 3	3	3	85
Chemistry	Chem. 2 & 3	6	6	87
History	Hist. 1	3	..	109
Latin	Lat. 36	1	..	96
Mathematics	Math. 36	1	..	117
Physics	Phys. 11	3	3	130
Physical Education	Phys. Ed. 1	3	..	136

SECOND YEAR

Subject	Course No.	Lect. hours	Lab. hours	Pge.
Materia Medica	M. M. 1	4	..	114
Pharmacy	Pharm. 1,2 & 4	4	6	127
Physiology (Biochemistry)	Biochem. 1	3	3	131
Toxicology	Toxic. 1	1	..	135
Physical Education	Phys. Ed. 2	3	..	136

II—THE B.Sc. DEGREE IN PHARMACY

Junior Courses.

FIRST YEAR

Subject	Course No.	Lect. hours	Pge.
English Composition	English 1	3	102
*French	French 1 and 3 or A	3	122
History	History 1	3	109
Latin	Latin 1 and 3 or A	3	95
Mathematics	Mathematics 1	3	115
Physics	Physics 11	3†	130
Physical Education	Physical Education 1	3	136

*German may be substituted for French at the option of the student.

†Three hours a week of laboratory work is also required.

SECOND YEAR

Subject	Course No.	Lect. hours	Lab. hours	Pge.
Botany	Biol. 1	3	3	85
Chemistry	Chem. 1	3	3	102
English	Eng. 2	3	..	102
Mathematics	Math. 7	3	..	115
History	Hist. 2	3	..	109
Zoology	Zool. 1	2	4	87
Physical Education	Phys. Ed. 2	3	..	136

In the second year History 2 is optional with Political Economy 1, and Mathematics 7 optional with Zoology 1.

Senior Courses

THIRD YEAR

Subject	Course No.	Lect. hours	Lab. hours	Pge.
Botany	Bot. 51	2	4	86
Chemistry	Chem. 52	3	3	88
Materia Medica	M. M. 51	4	..	114
Pharmacy	Pharm. 51, 52 & 54	4	6	127
Toxicology	Toxic. 1	1*	..	135

*First half session.

FOURTH YEAR

Subject	Course No.	Lect. hours	Lab. hours	Pge.
Bacteriology	Bact. 1	2	..	84
Biochemistry	Bioch. 61	3	3	..
Chemistry	Chem. 51	3	3	88
Materia Medica	M. Med. 52	3	..	114
Pharmacy	Pharm. 55	..	6	127

SCHOOL OF ACCOUNTANCY

The Diploma in Açcountancy

The course leading to a Diploma in Accountancy is a two years course covering the requirements for the Intermediate and Final examinations of the Institute of Chartered Accountants of Alberta, with additional courses in Mathematics and Economics. Students who wish to pass only the examinations of the Institute may omit these additional courses. Instruction in this department is offered in evening classes.

Junior Courses

FIRST YEAR

1. Law ..... Acc. 1
2. Auditing ..... Acc. 2
3. Theory Practice of Accounting Acc. 3
4. Economics ..... Hist. 3
5. Mathematics ..... Math. 51

SECOND YEAR

1. Commercial Law ..... Acc. 4
2. Auditing ..... Acc. 5
3. Accounting ..... Acc. 6
4. Economics ..... Hist. 4
5. Mathematics ..... Math. 42

DEGREES WITH DISTINCTION

FIRST CLASS STANDING

First Class Standing is awarded to those students in Applied Science and in the general course in Arts who have obtained in the required senior courses an average of eighty-five per cent. or over.

GRADUATE AND AD EUNDEM DEGREES

THE M.A. AND M.Sc. DEGREES

Candidates for higher degrees shall be under the supervision of the Committee on Graduate Studies.

1. A candidate for the Degree of Master of Arts or Master of Science, this degree to be sequent to the Bachelor's degree already held, must have a Bachelor's degree from this University or be admitted **ad eundem gradum,** and before presenting himself for the higher degree must have held the Bachelor's degree for at least one academic year.

2. A candidate must proceed to the Master's degree by

(a) **the pursuit of a prescribed course of study.** This course of study shall consist of, or be equivalent to, a full year of advanced work, and must form a cohesive whole with a definite aim. The honours course in any subject running through two years, together with the associated ordinary courses, may be regarded as fulfilling this requirement.

or (b) **the carrying out of an investigation.** A candidate who elects to carry out a piece of original investigation shall submit on or before April 1st of the year in which the degree is to be taken, a formal report embodying the results of the investigation, or submit a dissertation indicative of acquaintance with the methods of research, which shall be printed or typewritten, and which shall be deposited in the University Library. During the period of the student's candidacy, no use of the material or results of the investigation shall be made without the formal sanction of the Committee on Graduate studies. In all cases the subject of the investigation must receive the written approval of the head of the department concerned before it is submitted to the Committee on Graduate Studies as required in Section3, and the report when completed shall be accepted only on the recom-

mendation in writing of the department concerned. Every candidate will be required, in addition, to pass an examination written or oral, on the subject within which his investigation lies. Such examination shall be conducted under the supervision of the Committee on Graduate Studies.

3. A candidate who elects to proceed to the degree by method (a) must submit the course of study which he proposes to follow to the Committee on Graduate Studies and receive its approval on or before the first day of November of the year in which he undertakes his work for the degree.

A candidate who elects to proceed to the degree by method (b) must submit the subject of the investigation he proposes to carry out, to the Committee on Graduate Studies, and receive its approval on or before the first day of November preceding the spring in which the degree is to be taken. Candidates are strongly recommended, however, to submit their applications to the Committee at the close of the preceding session. This is especially advisable for students wishing to work in scientific departments.

THE B.D. DEGREE

By an arrangement with the affiliated colleges, the degree of B.D. is offered by the University to graduates in the Faculty of Arts and Sciences who follow a course of study presented by the affiliated colleges and approved by the University Senate. For information regarding this course application may be made to the Registrar.

AD EUNDEM DEGREES

Applications for **ad eundem degrees,** accompanied by diplomas and a calendar of the institution conferring the degree, should be made to the Registrar.

Details of Courses by Departments

The University reserves the right to modify or withdraw for the Session any of the Courses here outlined.

DEPARTMENT OF ACCOUNTANCY

Mr. Race, and the following sessional lecturers for 1919-20: Messrs C. L. Richardson, M. C. McCannel, A. E. Popple, and C. R. Lennan.

Junior Courses.

1. **Law.**
   Banking, Bills of Exchange, Partnerships and Companies.
2. **Auditing.**
   Elementary Course.
3. **Accounting.**
   Theory and Practice for Intermediate candidates.
4. **Law.**
   Companies, partnerships, executors, administrators, trustees, assignees, liquidators, commercial law, municipalities.
5. **Auditing.**
   Advanced course.
6. **Accounting.**
   Advanced course for Final candidates.

51. **Municipal Accounting.** Civil Engineering. 1 hr sec. half.

DEPARTMENT OF ANATOMY

Professor Revell, Assistant Professor Collins, and the following demonstrators for 1919-20: Messrs Drs. Adamson, McPherson, Folinsbee, Green, Hurlburt, and Bulyea.

Junior Courses.

1 **Gross Anatomy of Thorax and Abdomen.**
2 hrs lect., 15 hrs lab. first half.

Preparatory to the work in physiology, this course is given as the first in Anatomy and includes the osteology of the parts studied.

Text-books: *Text book of Anatomy*, Cunningham, Gray (American edition by Lewis), Morris (American edition by Jackson), Piersol, or Quain; *Manual of Practical Anatomy*, Cunningham, Cameron; *Terminology*, Barker, Eycleshymer; *Dictionary*, Gould, Stedman, Dorland; *Atlas* (for reference only), Toldt, Sobotta and McMurrich, Spalteholz.

2. **Gross Anatomy of Extremities.**
2 hrs lect., 8 hrs lab. sec. half.
Text-books: As for Anatomy 1.

3. **Gross Anatomy of Head and Neck.**
2 hrs lect., 8 hrs lab., sec. half.
For students in Dentistry.
Text-books: As for Anatomy 1.

5. **Neurology.** — 2 hrs lect., 4 hrs lab. first half.
Preliminary to physiology of nervous system; macroscopic and microscopic study of the central nervous system and special sense organs.
Text-books: *Introduction to Neurology*, Herrick; *Laboratory Outline for Neurology*, Herrick and Crosby.
For students in Dentistry.

6. **Odontology.** 1 hr lect., 3 hrs lab. sec. half.
Morphology of human teeth, occlusion and arrangement, deciduous teeth, comparative anatomy.
Text-books: *Dental Anatomy*, Black.
For first year students in Dentistry.

10. **Histology.** 3 hrs lect., 4 hrs lab. first half.
The cell, the elementary tissues.
Text-books: *Histology* Bailey, Jordan, Stöhr (Lewis), Schäfer, Quain (Vol. II, Pt.I).

11. **Histology.** 3 hrs lect. 3 hrs lab., first half.
A briefer course than Anatomy 10.
For students in Dentistry.
Text-books: As for Anatomy 10.

12. **Splanchnology.** 2 hrs lect., 4 hrs lab. sec. half.
The minute anatomy of the organs of the body.
Text-books: As for Anatomy 10.

13. **Splanchnology.** 2 hrs lect. 3 hrs lab., sec. half.
A shorter course than Anatomy 12, but giving more attention to oral structures.
For students in Dentistry.
Texts-books: As for anatomy 10.

14. **Embryology.** 1 hr lect., 3 hrs lab., sec. half.
The development of the human body.
Text-books: *Introduction to Vertebrate Embryology*. Reese; *Text book of Embryology*, Prentiss; *Development of the Human Body*, McMurrich.

15. **Embryology.** 1 hr lect. 2 hrs lab., sec. half.
A shorter course than Anatomy 14, devoting more attention to the development of the oral structures.
For students in Dentistry.
Text-books: As for Anatomy 14.

Senior Courses.

53. **Gross Anatomy of Head and Neck.**
2 hrs lab. first half.
2 hrs lect., 6 hrs lab. sec. half.
Text-books: As for Anatomy 1.

54. **Systematic Anatomy.**
During the third year, oral and written examinations are conducted in review of the work of the second year supplemented by the study of frozen sections.
Text-books: As for Anatomy 1. and *A Cross Section Anatomy*, Eycleshymer and Shoemaker.

56. **Advanced Anatomy.** Hours to be arranged.
Open to students who have completed the required work.

60. **Neurology.** 2 hrs lect., 6 hrs lab. first half.
Gross and minute structures of the central nervous system and organs of special senses; preliminary to physiology of nervous system.
Text-books: As for Anatomy 5.

DEPARTMENT OF ANIMAL HUSBANDRY

Professor Dowell and Assistant Professor Lattimer.

Junior Courses.

1. **Animal Husbandry.** 4 hrs lab.
Judging types and market classes of live stock.

3. **Animal Husbandry.** 1 hr lect., 4 hrs lab.
(a) Origin, history, and development of the different breeds of live stock.
(b) Judging breed types.

4. **Animal Husbandry.** 2 hrs lect., 2 hrs lab.
Similar to Course 51. For those taking the Three Year Course.

Senior Courses.

51. **Animal Husbandry.** 2 hrs lect., 2 hrs lab.
(a) Feed and management of live stock.
(b) Fitting stock for show or sale.

52. **Animal Husbandry.** 2 hrs lect.
Market production of beef, pork, milk, mutton, and wool.
Feeding and marketing horses.

53. **Animal Husbandry.** 2 hrs lect. first half.
Animal breeding.

54. **Animal Husbandry.** 2 hrs lect., 2 hrs lab. sec. half
Herd book study.

55. **Animal Husbandry.** 2 hrs lab. first half.
Advanced judging.

56. **Animal Husbandry.** 2 hrs lab.
Live stock experiments.

57. **Animal Husbandry.** 1 hr lect. sec. half.
Thesis.

DEPARTMENT OF ARCHITECTURE

Professor Burgess and Mr. Gibbs.

Junior Courses.

2. **Architectural Drawing.** 3 hrs lab.
Applied to historical examples.

3. **Architectural Design.** 6 hrs first half, 9 hrs sec. half.
The application of traditional forms to simple problems; subjects involving the use of the Classical Orders and of typical methods of construction.

4. **History of Architecture.** 2 hrs.
Ancient architecture. General review of Egyptian and Assyrian architecture and detailed study of Greek, Roman and Byzantine architecture.
Text-book: Anderson & Spiers, *Greek and Roman Architecture.*

5. **Building Construction.** 6 hrs lab.
Methods of employing, assembling, and framing materials in accordance with their various characteristics and the purposes for which each is suited. The principal elements of modern building work, such as, walls, floors, roofs, doors, windows, etc., treated from the point of view of practicable and customary construction. Standard methods of construction.
Text-book: Mitchell's *Building Construction, Junior Course.*

6 **Decorative Arts.** 4 hrs lab.
Study of decorative principles as applied to the various materials employed in building.

Senior Courses.

51. **Architectural Drawing.** 3 hrs lab.
Rendering in line and wash; development in light and shade; perspective drawing.

52. **Architectural Design.** 10 hrs lab.
Problems in planning and in the composition of elevations.

53. **Architectural Design.** 16 hrs lab.
Planning and grouping of buildings and surroundings.

54. **History of Architecture.** 2 hrs.
Mediaeval architecture.
Romanesque and Gothic architecture throughout Europe. The Perpendicular and Tudor styles in England. Study of the principles of stone construction in arches and vaults.
Text-book: G. H. West, *Gothic Architecture in England and France.*

55. **History of Architecture.** 2 hrs.
Renaissance and modern. The effects of the Renaissance movement as illustrated by architecture. The

various characters exhibited by Renaissance architecture throughout Europe at various periods. The relation of modern architecture to past styles.
Text-books: W. J. Anderson *Renaissance Architecture in Italy.* W. H. Ward, *Renaissance Architecture in France.* R. Blomfield, *English Renaissance Architecture.*

56. Decorative Arts. 3 hrs lab.
Decoration as employed in minor materials used in architecture, metal, plaster, terra cotta, etc.

57. Decorative Arts. 4 hrs lab.
An advanced course in decorative design.

58. Specifications. 1 hr first half.
The preparation of detailed description of architectural works with a view to entering upon and carrying out contracts.

60. Ventilation and Heating. 1 hr first half.
The scientific bases on which the circulation and warming of air in buildings must be provided for. The principal means taken to meet these requirements.
Text-book: R. G. Carpenter, *Heating and Ventilating Buildings.*

61. Building Construction. 6 hrs lab.
Advanced stage of Building Construction Architecture 5, including the more essentially modern methods of construction: re-inforced concrete, etc.
Text-book: Mitchell's *Building Construction. Advanced Course.*

62. History of Architecture. 3 hrs.
For students in Arts.

DEPARTMENT OF BACTERIOLOGY AND HYGIENE

Professor Rankin, Dr. Ower, Dr. Laidlaw and Dr. Orr.

Bacteriology.

Junior Courses.

1. Elementary Bacteriology.
1 hr lect., 3 hrs lab. first half.
Demonstrations in elementary bacteriology. Practical laboratory exercises, i.e., making of media, staining, etc.

2. **Agricultural Bacteriology.**
1 hr lect., 3 hrs lab. first half.

Demonstrations and lectures, elementary in character. Practical laboratory exercises in elementary bacteriology.

Senior Courses.

51. **Pathogenic Bacteriology.** 1 hr lect., 3 hrs lab.
The relation of bacteria and the higher parasites to disease. Cultivation of pathogenic microorganisms; isolation and identification of bacteria pathogenic to man, etc.

52. **Agricultural Bacteriology.**
1 hr lect., 3 hrs lab. sec. half.

Plant diseases ;study of specific microorganisms; soil bacteriology; dairy bacteriology.

Hygiene.

Senior Course.

51. **Elementary Hygiene.**
1 hr first half.

The principles of sanitary science.

52. **Hygiene and Sanitation.** 1 hr sec. half.
Points to be observed in design and construction of buildings to secure the best conditions of health. For architectural students.

DEPARTMENT OF BIOLOGY.

Professor Lewis, Miss Tuttle, and . . . .

Junior Courses.

1. **General Elementary Biology.** 3 hrs lect., 3 hrs. lab.
Morphology, physiology of the cell; elements of vegetable morphology, anatomy and physiology, Mendelism, genetics.
Prerequisites: Physics 1, Chemistry 1.

3. **General Elementary Botany** (Agriculture and Pharmacy). 2 hrs lect., 3 hrs lab.
Elements of vegetable morphology, anatomy and physiology, classification of flowering plants.

4. **Agricultural Botany** (2nd year Agriculture).
1 hr lect., 2 hrs lab. sec. half.
General vegetable physiology, diseases of plants, Mendelism and genetics.
Prerequisite: Botany 3.

Senior Courses.

51. Anatomy and morphology of the principal groups of plants, palaeobotany; general principles of classification, genetics, evolution.
Prerequisites: Chemistry 51, Geology Elementary.

52. The factors affecting plant growth and distribution; plant formations and associations, representative plant associations of the north temperate belt and arctic regions and their relation to soil and climate.
Prerequisites: Chemistry 52, Geology 52.

Honours Courses.

101. **Palaeobotany.** 3 hrs lect., 6 hrs lab.
Evolution of modern groups of plants as illustrated by the structure of fossil types from various geological horizons, plant remains in peat, lignite, and coal.
Prerequisites: Biology 1, Botany 51 and 52, Geology 51 and 52.

102. **Comparative Anatomy and Ecology.**
3 hrs lect., 6 hrs lab.
Evolution of chief tissues and organs of plants treated from a comparative point of view.
Prerequisites: Biology 1, Botany 51 and 52, Chemistry 52, Bio-chemistry.

103. **Comparative Distribution of Vegetation and Ecology.**
3 hrs lect., 6 hrs lab.
Distribution of vegetation in time and space considered from a dynamical point of view. Antecology and synecology.
Prerequisites: Chemistry 52 and 54, Geology 52, Biochemistry.

Graduate Courses.

Graduate students who have had the necessary training and wish to carry on research in some field of Botany should consult the head of the department.

Zoology.

1. **Elementary Zoology.** 2 hrs lect., 4 hrs lab.

2. **Economic Entomology.**
2 hrs lect., 2 hrs lab. sec. half.

3. **Elementary Embryology.**
2 hrs lect., 3 hrs lab. first half.

Other courses may be added for Session 1920-21.

DEPARTMENT OF CHEMISTRY.

Professor Lehmann, Assistant Professor Cowper, Dr. Seyer, Mr. Sandin, Mr. Stover, Mr. Good, Mr. Gardiner, Miss Fraser, and Mr. Reid.

Junior Courses.

1. **General Chemistry.** 3 hrs lect., 3 hrs lab.

Lectures: Common non-metals and some of the metals and their compounds; fundamental laws and theories, and some historic touches. The course includes a review from the beginning of the subject.
Laboratory: The setting up of apparatus; titrations, and standardisation of normal solutions; preparation and separation of a few substances as an introduction to quantitative analysis, and to illustrate some of the laws of chemistry; an introduction to qualitative analysis.
Text-books: Smith, *Chemistry for Colleges* (The Century Company) or McPherson and Henderson, *A Course in General Chemistry* (Ginn); Kenrick and DeLury (Macmillan); W. A. Noyes, *Qualitative Analysis* (Henry Holt).

2. **General Chemistry.** 3 hrs lect., 6 hrs lab.

Lectures similar to Chemistry 1.
Laboratory: The quantitative determination of nitrogen, sugar and a number of acids and bases, together with the laboratory work of Chemistry 1. For students in Medicine, Pharmacy, and Dentistry.
Text books: as in Chemistry 1.

3. **Organic Chemistry.** 3 hrs lect. first half, 3 hrs lect., 3 hrs lab. sec. half.
Lectures: An introduction to both the paraffin and the benzene series.
Laboratory: The preparation of some organic substances. For students in Medicine, Pharmacy, and Dentistry.
Text-books: Remsen, *Organic Chemistry* (Heath and Company); Garrett and Harden, *Practical Organic Chemistry* (Longmans).

4. **Organic Chemistry.** 3 hrs lect., 3 hrs lab.
Lectures: Similar to Chemistry 3.
Laboratory: Quantitative chemical analysis of some inorganic acids and bases.
For students in Agriculture.
Text-books: Remsen, *Organic Chemistry* (Heath and Company); Lincoln and Walton.

Senior Courses.

51. **Inorganic Chemistry.** 3 hrs lect., 3 hrs lab.
Lectures: Continuation of Chemistry 1 with special emphasis on metals; introduction to Physical Chemistry.
Laboratory: Qualitative analysis of inorganic bases and acids.
Text-books: Mellor, *Modern Inorganic Chemistry* (Longmans), or Holleman, *Inorganic Chemistry* (Chapman and Hall or Wiley); Jones, *Introduction to Physical Chemistry* (Macmillan); W. A. Noyes, *Qualitative Analysis.*

52. **Organic Chemistry.** 3 hrs lect., 3 hrs lab.
Lectures: Similar to those of Chemistry 3.
Laboratory: Introduction to qualitative and quantitative organic chemical analysis; preparation of organic substances.
Text-books: Remsen, *Organic Chemistry* (Heath and Company); Garrett and Harden, *Practical Organic Chemistry* (Longmans).

53. **Agricultural Chemistry.** 3 hrs lect., 3 hrs lab.
Lectures: A general course including soils and fertilizers, fodders and feeding.
Laboratory: Quantitative determination of some acids and bases; simple methods of fodder analysis.
For students in Arts and Sciences.

54. Physical Chemistry. 3 hrs lect., 3 hrs lab.

Lectures: Stoichiometry; atomistic theory; periodic system; gas laws; properties of liquids and solids; solutions; chemical dynamics and equilibrium; thermochemistry; electro-chemistry.
Laboratory: Molecular weights; calorimetric determinations; conductivity; concentration cells, etc., to illustrate the lecture course.
Text-books: Jones, *Introduction to Physical Chemistry* (Macmillan); Roth, *Exercises in Physical Chemistry* (Constable).

55. Inorganic Chemistry. 2 hrs lect., 6 hrs lab.

Lectures: Continuation of Chemistry 1, most important metals and their compounds; principles of analytical chemistry.
Laboratory: Qualitative analysis of inorganic bases and acids; quantitative determination of inorganic bases and acids in simple mixtures or solution.
For students in Mining Engineering.
Text-books: Smith, *Chemistry for Colleges* (The Century Co.) or McPherson and Henderson, *A Course in General Chemistry* (Ginn); W. A. Noyes, *Qualitative Analysis* (Holt); Foulk, *Notes on Quantitative Chemical Analysis* (McGraw-Hill Book Co.).

56. Analytical Chemistry. 2 hrs lect., 6 hrs lab.

Lectures: Continuation of Chemistry 55; methods of analysis of ores, minerals and clays.
Laboratory: Analysis of selected ores, minerals and clays.
For students in Mining Engineering.

57. Agricultural Chemistry. 3 hrs lect., 3 hrs lab.

Lectures: Digestibility, assimilation, and function of nutrients; composition of fodders and expression of their nutritive value.
Laboratory: Analysis of fodders.
For students in Agriculture.
Text-books: Kellner, *Scientific Feeding of Animals* (Macmillan); Lincoln and Wolton, *Elementary Quantitative Analysis* (Macmillan).

58. Analytical Chemistry. 3 hrs lect., 3 hrs lab.

Lectures: Continuation of Chemistry 1; principles and methods of quantitative chemical analysis; gravimetric, volumetric, colorimetric; standardisation of apparatus; sampling.

Laboratory: Work illustrating the lectures.

Text-books: Ostwald, *Foundations of Analytical Chemistry* (Macmillan); Foulk, *Notes on Quantitative Chemical Analysis* (McGraw-Hill); Sutton, *Volumetric Analysis* (Blakiston).

Honours Courses.

101. Organic Chemistry. 3 hrs lect., 6 hrs lab.

Lectures: Paraffin series, including unsaturated compounds; polymethylenes and purine derivatives; reading of assigned subjects.

Laboratory: Organic preparations.

Text-books: Holleman, *Organic Chemistry* (Chapman and Hall or John Wiley); Garrett and Harden, *Practical Organic Chemistry* (Longmans).

102. Organic Chemistry.

Lectures: The benzine series; naphthenes; terpenes; hetero-cyclic and conjugated cyclic compounds; history of chemistry; reading of assigned subjects.

Laboratory: Organic chemical analysis; molecular weight determinations; determination of the constitution of organic compounds.

Text-books: Holleman, *Organic Chemistry* (Chapman and Hall or Wiley).

103. Physical Chemistry. 3 hrs lect., 3 hrs lab.

Lectures: Covering the same topics as in Chemistry 54, but with more advanced treatment, and with greater emphasis on mathematical relations.

Laboratory: Practical measurements to illustrate the lecture course.

Text-books: Jones, *Introduction to Physical Chemistry* (Macmillan); Roth, *Exercises in Physical Chemistry* (Constable).

104. Physical Chemistry. 3 hrs lect., 6 hrs. lab.

Lectures: Chemistry of colloids; classification; preparation; properties; precipitations; suspensoids and emulsoids; surface phenomena; applications; advanced

electro-chemistry; electro-chemical theory; ionic migration; conductivity; dilution law; Nernst theory; E.M.F. and calculations; concentration cells; special types of cells; single potential; electrolysis; theory of storage battery.

Laboratory: Practical experiments; preparations; and measurements to illustrate the lecture course.

Text-books: Lehfeldt, *Electro-Chemistry*, Pt. 1 (Longmans); Hatschek, *Introduction to the Physics and Chemistry of Colloids*, or Taylor, *Chemistry of Colloids*.

DEPARTMENT OF CIVIL AND MUNICIPAL ENGINEERING.

Professor Wilson, Associate Professor Morrison, Associate Professor Robb, and Mr. Fife.

Junior Courses.

1. **Applied Mechanics.** 3 hrs lect. sec. half.

Composition and resolution of forces; bending moments; shears and reactions; funicular polygon; stresses in simple framed structures; centre of gravity; moment of inertia; applications of funicular polygon to arches and hanging chains.

2. **Mapping.** 3 hrs lab. first half.

Topographical and conventional signs; contour maps and problems; plotting from notes; mine survey notes; Problems on areas by latitudes and departures; division into triangles and planimeter; construction of small scale maps by polyconic or simple conic projection.

3. **Materials of Construction.** 2 hrs lect.

General characteristics, manufacture and use of woods, metals and their ores, cast iron and malleable cast iron, wrought iron, steels, (corrosion of iron and steel), other metals and alloys, limes and plasters, cements, mortars, concrete, clay products, glass, building stones, masonry construction, oils and paints, asphalts, bitumens, etc., explosives.

Text-book: Johnson, *Materials of Construction* (Wiley).

6. **Survey School.** 4 weeks at end of sec. half.

Fieldwork, including chaining, rodding, levelling, transit work, plane table survey; plotting of field notes.

Daily lectures on surveying methods; construction, adjustments and use of instruments; topography; contour surveying; mine surveying; descriptions for deeds; railway alignment problems; land system of the Dominion; photographic surveying.
Text-book: Breed and Hosmer, *Surveying*, Vols. I and II (Wiley).

7. Survey School: 4 weeks at end of sec. half.

Field work including adjustment of instruments; railway preliminary and location surveys; cross-sectioning; staking out buildings; determinations of azimuth, longitude, latitude and time by solar and stellar observations; base line measurements; angular measurements. Daily lectures on practical astronomy and geodesy including problems and methods of observing for latitude, time, longitude and azimuth sufficient to meet the needs of the practical surveyor.
Text-book: Hosmer, *Astronomy* (Wiley).

Senior Courses.

52. Foundations. 1 hr lect.

Classification, examination and bearing power of soils; design of foundations; pile foundations; spread footings; coffer-dams; pneumatic caissons..
Text-book: Jacoby and Davis, *Foundations for Bridges and Buildings* (McGraw-Hill).

53. Theory of Structures. 3 hrs lect.

Influence lines and maximum stresses under static and moving loads for beams, girders and trusses; lateral and portal bracing; viaduct towers and spaced frames; deflection and camber; method of least work; masonry structures; arches; suspension bridges.
Text-book: Spofford, *Theory of Structures*, (McGraw-Hill).

55. Hydraulics. 3 hrs lect., 3 hrs lab. sec. half.

Fundamental principles considered and applied to problems on discharge from orifices, notches, weirs, pipes and open channels; theory of impact of jets, turbines, pumps, hydraulic transmission of power; accumulators and lifts; discussion of hydrology; stream measurements and waterpower development. Laboratory work illustrates principles and includes measure-

ments of discharge from orifices and notches, tests of hydraulic ram, Pelton wheel, reaction turbine and centrifugal pump.
Text-book: Gibson, *Hydraulics and Its Application* (Constable).

57. Applied Thermodynamics. 2 hrs lect. first half.
2 hrs lect., 3 hrs lab. sec. half.

Fuel and combustion: steam boilers, engines, turbines and auxiliary machinery; the gas producer; internal combustion engine; compressed air; refrigeration.
Text-book: Ripper, *Steam Engine Theory and Practice* (Longmans & Co.).
Reference books: Clerk, *The Gas Petrol and Oil Engine*" (Longmans & Co.); Robson, *Power Gas Producers* (Arnold).

59. Water Supply and Sewage Disposal.
2 hrs lect., 3 hrs lab.

Water Supply: Quantity, quality and pressure requirements; rainfall and evaporation; collection and storage works; purification works; distribution system and details; designs and estimates.
Sewage Disposal: Separate and combined systems; collection methods; pipe layout and details; purification and dilution treatments; laws and regulations affecting sewage disposal.
Text-books: Turneaure and Russell, *Public Water Supplies* (Wiley); Folwell, *Sewerage* (Wiley).
Reference: Metcalfe and Eddy, *American Sewerage Practice*, Vols. I, II, III (McGraw-Hill).

62. Structural Design. 1 hr lect. first half.
1 hr lect., 3 hrs lab. sec. half.

Practical design of members in simple tension, columns and beams; rivets and rivetting; timber framing; loads on structures; roof trusses; building frame layouts; latticed columns, tension and compression members under direct stress and bending; eccentric connections. The design and detailing of a steel roof truss will be carried out in draughting room.
Text-book: Thayer, *Structural Design*, Vol 1 (Van Nostrand).

73. Applied Electricity. 2 hrs lect., 3 hrs lab. first half. 2 hrs lect. sec. half.

Continuous and alternating current flow in various circuits. Characteristics of direct and alternating current machinery. Generation and distribution of electric light and power.
Reference: Steinmetz, *General Lectures on Electric Engineering* (McGraw-Hill).

63. Structural Design. 2 hrs lect., 3 hrs lab.

History of bridge engineering; plate girders, loads, floor systems, types, design; reinforced concrete buildings and bridges; slow burning mill construction. Designs of a plate girder bridge, a reinforced concrete building and a retaining wall will be done in the draughting room.

66. Testing Laboratory. 3 hrs lab.

Standard tests of materials of construction including reinforced concrete beams and columns.

67. Applied Mechanics. 3 hrs lect., 3 hrs lab first half. 2 hrs lect. sec. half.

Lectures and exercises on the strength of materials and applied dynamics. Theory is illustrated by a large number of practical problems including applications to columns, beams and girders, continuous girders, shafting, thick hollow spheres and cylinders, rotating discs, reinforced concrete, hooks, etc.
Text-book: Morley, *Strength of Materials* (Macmillan).

70. Applied Mechanics. 2 hrs lect. first half.

Shorter but similar to C.E. 67. Problems and applications are adapted to meet the needs of the mining engineer and include design of ropes, head-fraces, etc.
Text-book: Morley, *Strength of Materials* (Macmillan).

71. Applied Mechanics. 2 hrs lect., 3 hrs lab first half. 2 hrs lect. sec. half.

Lectures and exercises to include fundamental principles of statics and applications to problems arising in building construction such as columns, beams, girders, roof trusses, etc.

74. Land Transportation. 3 hrs lect.

Financing of railway and highway projects; economics of construction, operation and maintenance; construction details; methods of location; care of city streets. Text-book: Blanchard, *Elements of Highway Engineering* (Wiley).

DEPARTMENT OF CLASSICS.

Professor Alexander, Associate Professor Misener, Mr. Carruthers, and Dr. Cox.

Latin.

Junior Courses.

A Matriculation Latin. 3 hrs.

A course designed to enable students with a deficiency in entering Latin to satisfy the matriculation requirement in that subject.

Inglis and Pretyman, *First Book in Latin;* Cornelius Nepos, *Vita Themistoclis;* Ovid, *Metamorphoses* (selections).

1. First Year Latin Authors. 2 hrs.

Cicero, *Pro Lege Manilia* (Woodhouse: Blackie); Horace, *Odes I and II* (Page: Macmillan); sight translations from Cicero.

3. First Year Latin Prose Composition. 1 hr.

A study of the major principles of Latin Prose Syntax; memorization of typical Ciceronian passages.

New Latin Prose Composition (Bennett: Allyn and Bacon).

2. Second Year Latin Authors. 2 hrs.

Pliny, *Select Letters* (Prichard and Bernard: Oxford); Vergil, *Georgics I and selections* (Papillon and Haigh: Oxford); sight translation principally from Silver Latin.

4. Second Year Latin Prose Composition. 1 hr.

Review of First Year Latin Prose; bi-weekly exercises in continuous Latin Prose Composition; memorization of typical passages.

Advanced Latin Prose Composition (Nutting: Allyn and Bacon).

36. Pharmaceutical Latin. 1 hr.
A course in Latin essentials as required in the School of Pharmacy.
Latin for Pharmacists (Harve and Brand: Blakiston).

Senior Courses:

51. Latin Literature of the Republic, First Course. 3 hrs.
Cicero, *Select Letters* (Abbott: Ginn); Catullus, *Select Poems* (Merrill: Ginn); sight translation; Latin prose composition.

52. Latin Literature of the Empire, First Course. 3 hrs.
Tacitus, *Annals I-IV* (Furneaux: Oxford); Juvenal, *Select Satires* (Pearson and Strong: Oxford); sight translation; Latin prose composition.
For students who in 1919-1920 took Latin 51; for fourth year Honours students.

53. Latin Literature of the Empire, Second Course. 3 hrs.
Seneca, *Epistulae Morales* (Summers: Macmillan); Martial, *Select Epigrams* (Bridge and Lake, Vol. 1: Oxford); sight translation; Latin prose composition.
For students who in 1919-1920 took Latin 2 and 4; for third year Honours students.

54. Latin Literature of the Republic, Second Course. 3 hrs.
Cicero, *De Officiis* (Holden: Cambridge); Lucretius, *De Rerum Natura I, III, V* (Merrill: American Bk. Co.); sight translation; Latin prose composition.

55. Latin Literature of the Empire, Third Course. 3 hrs.
Tacitus, *Agricola, Germania, Dialogus;* Horace, *Satires and Epistles;* sight translation; Latin prose composition.

56. Latin Literature of the Empire, Fourth Course. 3 hrs.
Tacitus, *Histories I and II;* Lucan, *Pharsalia* (selections); sight translation; Latin prose composition.

Honours and Graduate Courses.

101. Latin Elegiac Poetry. 2 hrs.

102. Latin Comedy. 2 hrs.

103. Lucretius. 2 hrs.
The critical and exegetical study of Book III and the reading of the entire poem.
The text will be Merrill's edition (American Bk. Co.) and the purchase of Bailey's translation (Oxford Library of Classical Translations) is recommended.

104. **Latin Literary Criticism.** 2 hrs.

111. 1 hr.

Latin prose composition in the various styles, historical, declamatory, philosophical, and epistolary.
Required of candidates for Honours.

113. **Advanced Latin sight translation.** 1 hr.
Required of candidates for Honours.

Greek.

Attention is directed to the fact that beginning with the present academic year Greek is made wholly a university subject. The language can therefore be begun in college and this beginning course can be credited towards a degree.

Junior Courses.

1. **Beginning Greek.** 3 hrs.
The fundamentals of Greek syntax; elementary Greek composition and reading.
Benner and Smyth's *First Greek Book* (American Bk. Co.); Colson's *First Greek Reader* (Macmillan).

2. **Second Year Greek Authors.** 2 hrs.
Lysias, *Select Orations* (Shuckburgh: Macmillan), Plato, *The Crito* (Owen: Blackie), Euripides, *Alcestis* (Earle: Macmillan); sight translation.

4. **Second Year Greek Composition.** 1 hr.
Advanced Greek syntax and composition.

Senior Courses.

56.
Plato, *Protagoras* (Adam: Cambridge); *Homer, Odyssey IX-XII* (Merry: Oxford); sight translation; continuous Greek prose.

Honours and Graduate Courses.
A course will be arranged in event of its being required.

Classical Philology.

51. **The culture of the Greeks and the Romans.** 3 hrs.
A study of the culture and influence of the classical peoples based upon their literatures and political in-

stitutions. No knowledge of the original languages is required as the literatures will be taken up through translations. Lectures, essays, reports.
Required in the second year of students looking forward to Honours in English or in Classics; open to all students in the third and fourth years as an option in Group B.

DEPARTMENT OF CLINICAL MEDICINE

Dr. Jamieson and Dr. Ower.

Senior Courses.

51. **Clinical Medicine.** 4 hrs.
Clinics at S.C.R. Hospital.
Relation of Anatomy and Physiology to Clinical Medicine. Surface markings; physical examination of patients; history taking.
Text-books: Rawling, *Surface Markings;* Hutchinson and Rainy, *Clinical Medicine;* MacKenzie, *Symptoms and their Interpretation.*

52. **Clinical Laboratory.** 4 hrs. sec. half.
Routine examination, chemical and microscopic, for diagnosis; urine, sputum, stomach contents, faeces, cerebrospinal fluid, exudates, blood.
Text-book: Todd, *Clinical Diagnosis.*

DEPARTMENT OF DENTISTRY.

Drs. Fuller and Bulyea.

Junior Courses.

1. **Prosthetic Dentistry.** 1 hr. lect., 3 hrs lab.
A study of the muscles and bones of mastication; the mucus membrane; the teeth; impression materials; impression taking; casts; artificial teeth; dentures; articulation and antagonization; festooning, carving, tinfoiling, finishing and polishing dentures; retention of dentures; vulcanite bases; metallic bases, swaged, cast; repairing dentures.
Text-book: Wilson's *Dental Prosthetics*
Reference: Prothero's *Dental Prosthetics; American Text-Book of Prosthetic Dentistry.*

2. **Operative Dentistry.** 1 hr lect., 2 hrs lab.

Lectures and demonstrations on nomenclature, dental caries, use of instruments, filling materials and operative methods.

Laboratory course on cavity preparation, filling procedure, instrument making, general operative work.

3. **Prosthetic Dentistry.** 1 hr lect., 3 hrs. lab.

(a) Examination of patients; impressions, methods, materials; trays, adjusting, individual; taking bite; occlusion and contour models; selecting teeth; face bow; anatomical articulation ;principles of retention, mucosa support, mechanical supports; bases, vulcanite, celluloid, aluminium, gold, platinum, continuous gum; partial dentures.

Text-book: Wilson's *Dental Prosthetics.*
Reference: Prothero's *Dental Prosthetics. American Text-Book of Prosthetic Dentistry.*

(b) History of crown work; crowns, where indicated, preparation and treatment of roots; varieties of crowns; grinding, casting, swaging, articulating; repairing crowns; causes of failure in crown work.

The laboratory course consists of making and fitting eight different varieties of crowns.

Text-book: Goslee, *Principles and Practice of Crown and Bridge Work.*
Reference: Evans, *Crown and Bridge.*

4. **Operative Dentistry.** 1 hr lect., 2 hrs lab.

An advanced course on the subjects of the first year.

DEPARTMENT OF DRAWING AND DESCRIPTIVE GEOMETRY.

Associate Professor Adam.

1. **Architectural Drawing.** 3 hrs.

Geometrical representation of architectural subjects, more especially the classical orders of architecture.

2. **Elementary Mechanical Drawing.** 3 hrs lab.

Use of instruments, projection, isometric drawing, simple machine details, timber framing, tinting, tracing, and blue printing. Lettering and titles.

3. **Freehand and Lettering.** 6 hrs lab.

A course related to Architecture, comprising perspective views, dimensioned sketches and lettering.

4. **Descriptive Geometry.** 1 hr lect., 3 hrs lab.

Geometrical drawing, orthographic and metric projection, section and developments, curved surfaces and tangent planes, shades and shadows.

5. **Mechanical Drawing.** 3 hrs lab.

Preparation of working drawings from dimensioned sketches; problems on motion under mechanical constraint.

DEPARTMENT OF ELECTRICAL ENGINEERING.

Professor Boyle and Mr. MacLeod.

51. **Theory of Direct Currents.** 3 hrs.

Required of third year students in Electrical Engineering.

52. **Direct Current Laboratory.** 6 hrs lab.

Operation of and experiments on storage batteries, direct current dynamos, motors, and motor-generating sets; use of measuring instruments, controlling and protective devices. Special attention is to be given to the preparation of reports on all work performed in the laboratory.

Required of third year students in Electrical Engineering.

53. **Electrical Engineering.** 2 hrs.

The laws of electromagnetism; continuous and alternating current flow in various circuits; characteristics of direct and alternating current machinery; the fundamental principles of electric lighting and power distribution.

Required of fourth year students in Civil and Mining Engineering.

54. **Machine Design.** 2 hrs.

The principles of stresses and strength of materials as applied to particular parts of machines and machine

fastenings, such as bolts, nuts, keys, cotters, and riveted joints.
Text-book: Unwin, *Machine Design, Part I* (Longman's, Green).
Required of third year students in Electrical Engineering.

55. Mechanics of Machines. 2 hrs lect., 1 hr lab.
Discussion of and problems on the principles involved in the design of gear trains, gear teeth, valves, valve gears, valve diagrams, etc.
Text-book: Schwamb and Merrill, *Elements of Mechanism* (Wiley).
Required of third year students in Electrical Engineering.

56. Mechanical Drawing. 3 hrs lab. sec. half.
Preparation of working drawings, tracings, etc., the principles discussed in the lectures of Mechanics of Machines being used to design cams, quick return motions, gear teeth, valves and valve gears.
Required of third year students in Electrical Engineering.

58. Power Distribution, Lighting and Traction. 2 hrs.

59. Alternating Currents. 3 hrs lect., 6 hrs lab.
2 hrs lect., 3 hrs lab.

60. Electrical Applications and Design.

61. Telegraphy and Telephony. 2 hrs lect., first half.

62. Electro-Chemistry and Metallurgy. 2 hrs.

63. Machine Design. 2 hrs first half.

DEPARTMENT OF ENGLISH.

Professor Broadus, Associate Professor Gordon and Mr. Wallace.

Junior Courses.

1. English Composition and Literature. 3 hrs.
The elements of effective writing in prose, based upon direct study of selected authors, with training in composition.
A Collection of Short Stories, edited by L. A. Pittenger (Mac-

millan *Pocket Classics*); *Books and Ideals*, edited by E. K. Broadus (Oxford Press); *Macbeth*, edited by H. J. C. Grierson (Oxford Press); Century Handbook of Writing (Century Co.).

2. **A General Reading Course in English Prose.** 3 hrs.
A survey of English prose from the seventeenth century to the present day, based on selections from the following authors: Bacon, Browne, Milton, Dryden, Swift, Addison, Richardson, Fielding, Johnson, Sterne, Smollett, Burke, Scott, Coleridge, Jane Austen, Lamb, Hazlitt, Carlyle, Macaulay, Thackeray, Dickens, George Eliot, Ruskin, Arnold, Stevenson, Meredith and Hardy.
English Prose from Bacon to Hardy, edited by E. K. Broadus and R. K. Gordon (Oxford Press).

3. **Composition for Students in Agriculture.** 1 hr.
Written and oral themes on agricultural topics.

4. **English Composition.** 3 hrs.
Practice in writing themes on agricultural topics, with study of suitable models. Lectures and class discussion.

Senior Courses.

54. **Composition for Students in Agriculture.** 1 hr.
Written and oral themes on agricultural topics.

52. **A History of English Fiction.** 3 hrs.
Lectures and class discussion.
Students are required to read the following works: Lodge's *Rosalind;* Bunyan's *Pilgrim's Progress;* Defoe's *Robinson Crusoe;* Smollett's *Roderick Random;* Richardson's *Clarissa Harlowe;* Fielding's *Tom Jones;* Sterne's *Tristram Shandy;* Goldsmith's *Vicar of Wakefield;* Scott's *Waverley;* Jane Austen's *Pride and Prejudice;* Dickens' *David Copperfield;* Thackeray's *Vanity Fair;* Trollope's *Barchester Towers;* Charlotte Bronte's *Jane Eyre;* George Eliot's *Adam Bede;* Meredith's *The Egoist;* Hardy's *The Return of the Native*, and the selections in *The English Novel Before the Nineteenth Century, edited by Hopkins* and Hughes (Ginn); Cross: *The Development of the Novel* (Macmillan).
Not given 1920-21.

55. History of Literary Criticism. 3 hrs.

Lectures and class discussion.

Study of selected critical essays with special attention to the study of the following: Aristotle, Longinus, Quintilian, Sidney, Jonson, Dryden, Johnson, Wordsworth, Coleridge, Hazlitt, Shelley, Carlyle, Arnold.

Text-books: Saintsbury, *Loci Critici* (Ginn); Dryden, *Dramatic Essays* (Dent); *English Critical Essays* (Oxford).

Not given 1920-21.

53. Shakespeare. 3 hrs.

Lectures and class discussion.

Special study of the following plays: *Midsummer Night's Dream, Twelfth Night, The Tempest, Romeo and Juliet, Hamlet, King Lear.*

Collateral reading: *King John; Henry IV, Part I, Henry IV, Part II; Henry V;* (*The Tudor Shakespeare*, Macmillan).

60. Milton. 3 hrs.

Lectures on essential aspects of seventeenth century life and literature. Special study of *Paradise Lost*, and of selections from the prose works and minor poems.

Milton's Poetical Works (Oxford); *Prose of Milton*, edited by Richard Garnett (The Scott Library).

57. Studies in the Poets of the Romantic Period. 3 hrs.

Lectures and class discussion.

Wordsworth, Coleridge, Scott, Byron, Shelley, Keats. Editions in the World's Classics (Oxford).

58. Browning and Tennyson. 3 hrs.

Lectures and class discussion.

The Globe Editions (Macmillan).

59. Nineteenth Century Prose. 3 hrs.

Lectures and class discussion.

Study of J. S. Mill, Carlyle, Newman, Arnold, Ruskin, Huxley, as representative of nineteenth century thought.

J. S. Mill, *Liberty, Utilitarianism* (Everyman's Library); Carlyle, *Sartor Resartus*, edited by MacMechan (Ginn); *Heroes and Hero-Worship*, edited by MacMechan (Ginn); *Past and Present* (World's Classics); Newman, *Apologia* (Oxford); *Idea of a University* (*Selections*, Houghton Mif-

flin); Arnold, *Selections*, (Holt;); Ruskin, *Selections and Essays* (Scribners); Huxley, *Lay Sermons* (Everyman's).

61. Journalism. 3 hrs.

Practice in writing special "news items" and feature articles. Special assignments will be given in consultation with the instructor. Students desiring to specialize in agricultural writing, reviewing, or other branches of journalistic work, will be assisted to relate their assignments to their special aims.
Lectures, conferences, class discussion.

Honours.

Group A:

106. Studies in Elizabethan Literature. 3 hrs.

Special topics to be arranged in consultation with the instructor.

107. Studies in Early Nineteenth Century Literature. 3 hrs.

Special topics to be arranged in consultation with the instructor.
The following second year programme is prerequisite for Honours in Group A: English 2, Classical Philology I, History 2, a foreign language, an option.

Group B:

104. Old English and History of the English Language. 3 hrs.

Emerson, *History of the English Language* (Macmillan); Sweet, *Anglo-Saxon Primer* (Oxford); Chambers and Wyatt, *Beowulf* (Cambridge University Press).

105. Middle English Literature and Chaucer. 3 hrs.

Emerson, *Middle English Reader* (Macmillan); Chaucer, *Works* (Oxford).
Open only to students who have taken 104.
The following second year programme is prerequisite for Honours in Group B: English 2, Classical Philology 1, Latin or French, History 3, an option.

DEPARTMENT OF FARM MECHANICS.

Junior Courses.

1. **Farm Mechanics.**
   Farm machinery.

2. **Farm Mechanics.**
   Farm buildings.

DEPARTMENT OF FIELD HUSBANDRY.

Professor Cutler and Assistant Professor Newton.

Junior Courses.

1. **Field Husbandry.** 2 hrs lect., 2 hrs lab.
   Crop Production:
   (a) Principles underlying the growth of crops and the means by which man may control the important factors in crop production. Study of the seed, germination and plant growth; the climate as it affects plant growth; the choice of crops and varieties, their practical classification, peculiar characteristics and economic qualities; cultural methods best suited to the climate and soil conditions of Alberta.
   (b) Seed judging.
   Text-book: M. A. Carleton, *The Small Grains.*

2. **Field Husbandry.** 2 hrs lect., 2 hrs lab.
   (a) Farm crops:
   Cereals, grasses, clovers, alfalfa, fodder and root crops, potatoes; botanical structures and relationships with laboratory practice in the identification and classification of species; economic aspects; including range management.
   (b) Tillage, cultural and rotation methods for cereal and forage crops.
   Text-book: C. V. Piper, *Forage Plants and their Culture.*

Senior Courses.

51. **Field Husbandry.** 2 hrs lect., 2 hrs lab
   (a) Judging and commercial grading of grains and seeds.
   (b) The grain trade of Western Canada.

52. Field Husbandry. . . 3 hrs lect. first half

(a) Plant Breeding.

This course is designed to acquaint the students with the principles underlying the breeding of plants. It embraces also a study of methods employed and results obtained by the leading plant breeders in selecting and breeding the different cereal and forage crops. It includes a history of the early attempts at improvement and the methods of seedsmen and farmers who are maintaining and improving the purity and quality of crops.

(b) Seed Distribution.

Methods followed by the leading experiment stations and universities in Europe and America in the multiplication and distribution of improved strains.

53. Field Husbandry. 1 hr lect. sec. half.

Crop management investigations and experimental results. This course deals with investigations in crop production. It includes investigations in relation to climate, crop management, industrial qualities in grain crops; silage; rotation and range and pasture management experiments. It includes also a study of the investigational work under way at the Dominion and Provincial Farms and Illustration Stations, together with co-operative experimental work with farmers.

54. Field Husbandry. 2 hrs lect. sec. half.

Present problems in the successful growing of crops in Western Canada with special reference to Alberta. This course briefly reviews the junior course in crops and goes more fullyinto the choice of crops, cultural methods, cost of production in relation to the different types of farming in this province, and general relation to the leading types of world agriculture. This course deals also with specific or local provincial problems which press for solution.

55. Field Husbandry. 2 hrs lab.

Seed and Crop Judging. Training is given in the judging of seeds, grains and crops; procedure in judging at plowing matches, field crop and better farming

competitions and seed fairs, that the student may have an accurate knowledge, first of the use of a score card, and, second, as to the methods followed in awarding prizes.

56. **Field Husbandry.** 1 hr lect. sec. half.
Experimental Methods. The development of present day methods in crop experimentation; procedure in laying down projects; plot management; the use of checks or replicates; interpretation of results; calculation of experimental error and general discussion of the problem of securing results of highest value.

57. **Field Husbandry.** 1 hr.
Thesis. An original production dealing with a specific problem involving a special study of the problem, together with the literature on the same.

DEPARTMENT OF GEOLOGY.

Professor Allan, Miss Lee and . . . .

Junior Courses.

31. **Elementary Geology.** 2 hrs lect. first half.
Relation of geology to agriculture; erosion processes; formation of soils; principle of Artesian water supply; common minerals and rocks.

32. **Introductory Geology.** 2 hrs lect. first half.
3 hrs lab. sec. half.
External agencies of erosion; internal dynamic agents; interpretation of topographic maps; physiography of Canada; stratigraphic column; structural geology.

33. Same as 32 for 1920-21. Open to students taking Honours in Botany and in Economics.

Senior Courses.

51. **General Geology.** 3 hrs lect., 3 hrs lab.
Processes of destruction and reconstruction; interpretation of physiographical features with map study; stratigraphic column with index fossils from each period; common minerals and rocks.
Text-book: Pirsson and Schuchert, *Text Book of Geology* (Wiley).

52. Petrology. 3 hrs lect., 3 hrs lab. first half.

Physical, chemical and optical properties of common rock forming minerals; classification and genesis of sedimentary, igneous and metamorphic rocks.
Text-book: Pirsson, *Rocks and Rock Minerals* (Wiley).
Prerequisite: Geology 32.

53. Mineralogy and Petrology. 3 hrs lect., 3 hrs lab.

Principles of crystallography; physical and chemical properties of metallic and non-metallic minerals; blow-pipe analysis; principles of rock classification; determination of sedimentary, igneous and metamorphic rocks.
Text-books: Lewis, *Determinative Mineralogy;* Pirsson, *Rocks and Rock Minerals* (Wiley).
Prerequisite: Geology 51.

54. Mineralogy. 2 hrs lect., 3 hrs lab. first half.
1 hr lect., 3 hrs lab., sec. half.

Physical and chemical properties of metallic and non-metallic minerals including hydrocarbons; elements of crystallography; descriptive and determinative mineralogy; blow-pipe analyses.
Text-books: Rutley's *Elements of Mineralogy* (Thos. Murby & Co.); Brush and Penfield, *Determinative Mineralogy and Blow-Pipe Analyses* (Wiley).
Prerequisite: Geology 32. Geology 52 may be taken at same time.

55. Stratigraphy. 3 hrs lect., 3 hrs lab.

Discussion of principles of stratigraphy; special consideration to stratigraphy of North America with index fossils from each of the periods; interpretation of geological maps.
Prerequisite: Geology 51.

58. Mineral Deposits. 3 hrs lect., first half.
3 hrs lect., 3 hrs lab. sec. half.

Classification, mode of occurrence and geological relations of various types of mineral deposits, including petroleum, natural gas and coal. Emphasis will be given to Alberta mineral deposits, including clays.

62. Paleontology. 3 hrs lect., 3 hrs lab.
Principles of classification; comparison with modern forms; representative fossils from each geological period; determination of type material.
Text-book: Shimer, *Introduction to the Study of Fossils* (Macmillan).
Prerequisite: Geology 51.

Honours Courses.

101. Canadian Geology.

102. Stratigraphical Geology.

103. Petrography.

DEPARTMENT OF HEBREW.

Senior Courses.

51. Elements of Hebrew. 3 hrs.

52. Old Testament Historical Literature. 3 hrs.

53. Selected Readings from Prophetic Books. 3 hrs.

DEPARTMENT OF HISTORY.

President Tory, Associate Professor Burt and Assistant Professor Long.

Junior Courses.

1. General History. 3 hrs.
Outlines of general history from the Renaissance to the present day.
Text-books: Seebohm, *The Era of the Protestant Revolution;* Robinson and Beard, *The Development of Modern Europe;* Members of the Oxford Faculty of Modern History, *Why We are at War.*

2. British History. 3 hrs.
From the Tudor period to the present day.
Text-books: Gardiner, *Student's History of England,* Vols. II and III; Atlas of English History.

3. British History. 3 hrs.
From the beginnings to 1485.
Text-books: *Oman, England Before the Norman Conquest;*

Davis, *England Under the Romans and Angevins;* Vickers, *England in the Later Middle Ages.*
Reference readings will be assigned during the course.
This course is designed only for students intending to read for Law or for Honours in History and is to be taken in conjunction with History 2.

Senior Courses.

53. European History. 3 hrs.

From the Barbarian Invasions to the fall of the Hohenstaufen.

Text-books: Emerton, *Introduction to the Middle Ages;* Emerton, *Mediaeval Europe.*
Reference readings will be assigned during the course.
Not given 1920-21.

54. European History. 3 hrs.

From the Renaissance to the end of the wars of religion.

Text-books: Symonds, *Short History of the Italian Renaissance;* Froude, *Life and Letters of Erasmus;* Lindsay, *History of the Reformation;* Harrison, *William the Silent;* Gardiner, *Thirty Years War; Cambridge Modern History* (selected chapters).
Reference readings will be assigned during the course.

56. European History. 3 hrs.

From the Congress of Vienna to the present day.

Text-books: Hazen, *Europe Since 1815;* Litchenberger, *Germany and its Revolution in Modern Times;* Steed, *The Hapsburg Monarchy;* Fisher, *The Republican Tradition in Europe;* Cesaresco, *The Liberation of Italy;* Lowell, *Governments and Parties in Continental Europe;* selected chapters; Powers, *The Things Men Fight For; Cambridge Modern History* (selected chapters).
Reference readings will be assigned during the course.

57. English Constitutional History. 3 hrs.

Text-books: Maitland, *Lectures on English Constitutional History;* Adams and Stephens, *Select Documents of English Constitutional History;* Dicey, *The Law of the Constitution.*
Reference readings will be assigned during the course.
Not given 1920-21.

58. Canadian History.

Political and constitutional.

Text-books: Lucas, *New France;* Egerton, *Canada Under British Rule;* Durham's Report; Kennedy, *Documents of the Canadian Constitution.*

Reference readings will be assigned during the course.

Honours and Graduate Courses.

101. English History. 3 hrs.

From the accession of James I to the Restoration.

Text-books: Montague, *History of England* 1603 *to* 1660 for the general outline; Gardiner, *History of England,* 1603 *to* 1642; *History of the Great Civil War; History of the Commonwealth and Protectorate;* Firth, *Last Years of the Protectorate; House of Lords During the Civil War; Cromwell's Army; Cromwell;* Hutton, *Laud;* Traill, *Strafford;* Carlyle, *Cromwell's Letters and Speeches;* Prothero, *Statutes and Constitutional Documents* 1559-1625; Gardiner, *Constitutional Documents of the Puritan Revolution* 1625-1660; Clarendon, *History of the Rebellion and Civil Wars in England; Whitlocke's Memorials; Ludlow's Memoirs; Pepys' Diary; The Clarke Papers.*

102. European History. 3 hrs.

From the outbreak of the French Revolution to the Congress of Vienna.

Madelin, *The French Revolution,* and Rose *or* Fournier, *Napoleon I* for the general outline; De Tocqueville, *L'Ancien Régime;* Taine, *Les Origines de le France Contemporaire;* Sorel, *L'Europe et la Revolution Française, The Cambridge Modern History;* Lavisse et Rambaud, *Historie Générale;* Aulard, *Political History of the French Revolution; Etudes et Leçons;* von Sybel,, *Geschichte der Revolutionszeit;* Belloc, *Danton;* Mahan, *The Influence of Sea Power upon the French Revolution and Empire;* Morse Stephens, *The French Revolution;* Acton, *Lectures on the French Revolution;* Vandal, *L'Avènement de Bonaparte;* Seeley, *Life and Times of Stein;* Fisher, *Napoleonic Statesmanship;* Oman, *A History of the Peninsular War;* Houssaye, 1814, 1815.

Not given 1920-21.

DEPARTMENT OF HISTORY OF AGRICULTURE

Dean Howes.

Junior Courses.

1. **History of Agriculture.** 1 hr.
   Study of ancient agriculture: South American, Grecian, Roman.

2. **History of Agriculture.** 1 hr.
   Similar to Course 51. For those taking the three year course.

Senior Courses.

51. **History of Agriculture.** 1 hr.
   Evolution of agriculture in England and in continental Europe.

52. **History of Agriculture.**
   Study of the development of agriculture in America; particularly in Canada.

DEPARTMENT OF HORTICULTURE.

Mr. Harcourt.

Junior Course.

1. **Horticulture.** 2 hr lect.
   Propagating, pruning ,grafting and hybridizing fruits; hardy varieties; lawns; decorative planting; wind breaks and screens; farm forestry and beautifying the home.

DEPARTMENT OF HOUSEHOLD ECONOMICS.

Miss Patrick.

Junior Courses.

1. **History of Home Life.** 1 hr.
   (a) A brief historical review of the position of women among the nations of ancient and modern times; their contribution to social, educational and industrial life.
   (b) **Sewing.** 2 hrs.
   Instruction in hand and machine sewing as applied to the making of simple garments.

2. **Home Nursing.** 3 hrs lect., 2 hrs lab.

Home care of the sick—emergencies; simple bandages.

Textiles.

The composition, physical properties and manufacture of fabrics; influence of these on selection and methods of cleansing.

3. **Household Management.**

3 hrs lect., 3 hrs lab. sec. half.

Materials found in the home; principles involved in their care; the house, its equipment and furnishing. Labor-saving devices.

Foods.

An introduction to the study of foods and cookery.

31. **Experimental Cookery.** 3 hrs lab.

Experimental study of foods to determine the best methods of preparation. Individual problems will be assigned.

Senior Courses.

51. **Foods.** 3 hrs lect., 3 hrs lab.

A study of foods; laboratory practice in food preparation.

Home Nursing.

The care of the sick in the home.

Household Management.

The care of the house, furnishings and equipment; labor-saving devices.

52. **Economics of the Household.** 3 hrs lect., 3 hrs lab.

The home as a business; the income and its expenditure; standards of living, budgets—household and personal accounts.

Foods.

Nutritive value and cost of foods; food for the family group; planning and preparation of meals; special diets.

Prerequisite: 51.

55. **Foods.** Lecture and discussion. 4 hrs lect., 6 hrs lab.

Typical foods—production, manufacture, composition, value in the diet. Supplementary reading will be required and used as a basis for class discussion.
Laboratory work: an experimental study of foods; the principles of cookery. Preparation of typical foods.

56. **Economics of the Household.** 2 hrs.

The home as a business; the income and its expenditure; standards of living, budgets—household and personal accounts.

57. **Dietetics.** 2 hrs lect., 3 hrs lab.

The principles of nutrition applied to the feeding of individuals and the family group under normal conditions. Diets for special cases.

58. **Invalid Cookery.** 3 hrs lab. first half.

An application of the principles of cookery to dishes for the sick and convalescent.

59. **Methods.** 3 hrs sec. half.

The problem of teaching Household Economics; equipment, arrangement of courses; methods of presentation of subject matter; demonstrations.

DEPARTMENT OF MATERIA MEDICA.

Professor Gaetz.

Junior Courses.

1. **Official Drugs.** 4 hrs lect.

Inorganic and organic.

3. **Official Drugs.** 1 hr lect.

A selected group, both inorganic and organic. For Medical students.

Senior Courses.

51. **Official Drugs.** 4 hrs lect.

Inorganic and organic.

52. **New and Unofficial Drugs.** 3 hrs lect.

A selected list of important new drugs and a more minute study of some important official drugs.

DEPARTMENT OF MATHEMATICS.

Professor Sheldon, Associate Professor Killam, Assistant Professor Campbell, Mr. Race, Mr. Milne, Mrs. Mitchell and Mr. Bryden.

Junior Courses.

1. General Elementary Mathematics. 3 hrs.

Lectures on the fundamental principles and methods of algebra, geometry, trigonometry and statistics; applications of mathematics in science, industry and art. Text-books: Whitehead, *Introduction to Mathematics* (Home Univ. Lib.); Thomson, *Introduction to Science* (Home Univ. Lib.); *Science and the Nation* (Cambridge); Thompson, *Growth and Form* (Cambridge); Brinton, *Graphic Methods* (Eng. Mag. Co.); Young and Morgan, *Elementary Mathematical Analysis* (Macmillan).
Required of first year students in Arts and Sciences and in Architecture.

0. 1 hr.

The technique of Mathematics 1.

2. 3 hrs.

The technique of Mathematics 1; required of first year students in Architecture, and of students taking Mathematics 1 in preparation for Engineering.
Text-books: Clapham, *Arithmetic for Engineers* (Dutton); Saxelby, *Course in Practical Mathematics* (Longmans); Young and Morgan, *Elementary Mathematical Analysis* (Macmillan).

3. 3 hrs.

The advanced section of Mathematics 1: lectures on the most fundamental topics in Mathematics 1 and 7. For students who intend to specialize in Science.

7. Algebra and Analytic Geometry. 3 hrs.

Binomial theorem, complex numbers, series; limits differential coefficients, anti-derivatives, theory of equations, determinants. Introduction to analytic geometry.
Text-book: Davison, *Higher Algebra* (Cambridge).

21. Elementary Mathematical Analysis. 6 hrs.

Power, polynominal, exponential, logarithmic and circular functions. Graphic algebra. Errors and approximations; slide rule; tables; theory of equations; infinite series; derivatives and anti-derivatives. Applications to plane and solid geometry and spherical trigonometry.

Text-books: Young and Morgan, *Elementary Mathematical Analysis* (Macmillan); Godfrey and Siddons, *Elementary Algebra*, vol. ii (Cambridge); Betz and Webb, *Solid Geometry* (Ginn); Murray, *Spherical Trigonometry* (Longmans). Required of first year students in Engineering and of second year students in Architecture.

20. 3 hrs.

The technique of Mathematics 21; for those students only who require additional training in technique.

22. Elementary Mechanics. 2 hrs lect., 3 hrs lab.

Elementary definitions: velocity, accceleration, parallelogram of velocities, triangle of velocities. Weight, mass, falling bodies. Newton's three laws. Machines: lever, wheel and axle. Pulleys. Inclined plane. Special emphasis on written problems and on laboratory work.

Text-book: Duncan and Starling, *Text-book of Physics, Part I, Dynamics* (Macmillan).

25 and 26. Calculus and Mechanics. 6 hrs.

A first course in the Calculus. Statics and Dynamics. Applications of the Calculus in various sciences, especially in Mechanics.

31. Elementary Mathematics (Agriculture). 3 hrs.

Review of Arithmetic; fundamental methods of algebra; computation; statistical and other graphs.

Text-books: Clapham, *Arithmetic* (Dutton); Brinton, *Graphical Methods* (Eng. Mag. Co.); Wolff, *Mathematics for Agricultural Students* (McGraw-Hill).

32. Elementary Mathematics (Medicine). 2 hrs sec. half

Proportion, similitude, rate of growth; measurement, computation; graphical methods; elementary statistics.

Text-books: D'Arcy W. Thompson, *Growth and Form* (Cambridge); Brinton, *Graphical Methods* (Eng. Mag. Co.); Clapham, *Arithmetic* (Dutton); King, *Elements of Statistical Method* (Macmillan).

33. **Mathematical Statistics** (Agriculture). 3 hrs first half.

The statistical methods used in Genetics; computation.

Text-books: King, *Elements of Statistical Method* (Macmillan); Babcock and Clausen; Davenport; Wolff.

36. **Elementary Mathematics** (Pharmacy). 1 hr.

The arithmetic and algebra required in Pharmacy.

Text-book: Stevens, *Arithmetic of Pharmacy* (Van Nostrand).

41. **Elementary Mathematics** (Commerce).

For students preparing for the Intermediate Examination of the Institute of Chartered Accountants.

Advanced Courses.

Students in the Faculty of Arts and Sciences who intend to read for honours are required to take in the first year Mathematics 3 and in the second year Mathematics 55 and 56.

Senior Courses.

53. **Astronomy.** 3 hrs.

History of early astronomy, study of the earth; astronomical coordinates, time. The solar system, the stars, structure of the universe, origin of the solar system. Practical work in the observatory; study of the constellations, latitude and longitude, use of the instruments.

Text-book: Moulton, *Introduction to Astronomy* (Macmillan).

55. **Calculus.** 3 hrs.

As in Mathematics 25, with additional topics.

56. **Mechanics.** 3 hrs.

As in Mathematics 26, with additional topics.

57. **Advanced Calculus.** 3 hrs.

A second course in the Calculus, including differential equations.

58. **Advanced Mechanics.** 3 hrs.

Dynamics of rigid bodies; celestial mechanics.

61. **Theory of Finance.** 3 hrs.
Interest, annuities, amortization, valuation of bonds, sinking funds and depreciation, theory of probability; elements of the mathematical theory of life assurance, including the calculation of net premiums.
Text-book: Skinner, *Mathematical Theory of Investments* (Ginn).

62. **Statistics.** 3 hrs.
Use of statistics, collection of material and the history of statistics; frequency distributions and graphical representation of statistical results; averages; dispersion, correlation; statistical application of life tables.
Text-book: West, *Mathematical Theory of Statistics* (Ginn).
Not offered in 1920-21.

63. **Graphical and Numerical methods** (Engineering).
2 hrs lect., 3 hrs lab. sec half.
Application of graphical methods to algebra and the calculus. Nomography. Introduction to the theory of probabilities and measurements.
Text-book: Peddle, *Graphical charts* (Wiley).

64. **Vector Analysis.** 3 hrs.
Not offered in 1920-21.

Honours Courses.

The courses offered will be selected from the following:

101. **Elementary Theory of Functions.**

102. **Graphical and Numerical Methods.**

103. **Solid Analytic Geometry.**

104. **Projective Goemetry.**

105. **Theory of Functions.**

106. **Algebra.**

107. **Differential Equations.**

108. **Mechanics.** (Honours.)

109. **Finance.** (Honours.)

110. **Fundamental Topics.**

Graduate Courses.

Courses for the Master's Degree may be arranged in conference with the head of the department.

DEPARTMENT OF MINING ENGINEERING.

Professor Pitcher, Assistant Professor Cameron and Mr. Hollies.

Senior Courses.

Opportunity is offered for study either in Coal or Metal Mining. The student is expected to decide before entering his third year as to which course he desires to follow and his work will be laid out accordingly. The department undertakes to find employment during the summer months in the mines of Alberta or British Columbia for all its students, thereby giving them opportunity to get necessary practical experience in their chosen field.

All students are required to take the Mine Survey school at the end of the third year.

Reference Books.

The department does not require the student to purchase text books for the various courses but prescribes a list of references from which he is expected to select reading.

51. **Coal Dressing.** 2 hrs lect., 3 hrs lab. sec. half.

Factors governing the need of dressing operations, wet and dry cleaning, screens, picking tables, crushers, dry cleaners and washers.

Required of third year students taking Coal Mining.

52. **Ore Dressing.** 2 hrs lect., 3 hrs lab. sec. half.

Theoretical considerations affecting specific gravity separations and concentrations, crushers, screens, classifiers, jigs, tables, vanners, etc.

Required of third year students taking Metal Mining.

53. **Fuel Analysis.** 3 hrs lab.

Laboratory work on proximate analysis of coals, coke, oil, etc., calorimeters and calorimeter determinations.

Prerequisite: Chem. 1.

Required of third year students taking Coal Mining.

54. **Fire Assaying.** 1 hr lect. first half, 3 hrs lab.

Furnaces, balances, and other apparatus, sampling and preparation of ores for assaying, special methods of assay, assays for gold and silver in ores, mattes, slags, etc.
Required of third year students taking Metal Mining.
Prerequisite: Chem. 1.

55. **Metallurgy and Coke.** 2 hrs lect., 3 hrs lab first half.

Natural and prepared fuels, coke and its by-products, calorimetry and pyrometry, alloys of the metals.
Prerequisite: Chem. 1.
Required of all students in the third year.

56. **Principles of Mining.** 1 hr lect.

Surface and underground prospecting, deep drilling, earth and rock excavation, drills and coal cutters, blasting rock and coal, development work and workings, shafts, drifts, entries, timbering, drainage, illumination.
Prerequisite: C.E. 3.
Required of all students in the third year.

57. **Mine Survey School.**

58. **Metallurgy.** 2 hrs lect., 3 hrs lab. sec. half.

Iron smelting, blast furnaces, manufacture of wrought iron and steel, electro-mettalurgy, iron-carbon alloys. Copper smelting, converting and refining, lead smelting and refining, zinc smelting.
Prerequisite: M.E. 55.
Required of 4th year students taking Metal Mniing.

59. **Coal Mining.** 2 hrs lect., 3 hrs lab. first half.

Coal mine development, subsidence and support of excavations, entries, pit bottom, pillars, room and pillar mining, longwall mining, flat seams, pitching seams, thick seams, multiple seams, illumination, examination, valuation and administration.
Prerequisite: M.E. 56.
Required of fourth year students taking coal mining.

60. **Metal Mining.** 2 hrs lect.

Alluvial mining, hydraulic mining, open cuts, glory hole and milling, underhand and overhand stoping,

open and shrinkable stopes, filled and timbered stopes, caving methods, mine examination, valuation and administration.
Prerequisite: M.E. 56.
Required of fourth year students taking Metal Mining.

61. **Mining Machinery.** 2 hrs lect. sec. half.

Head frames and tipples, ore bins, winding engines, drums and sheaves, skips and cages, chutes and chute gates, gravity planes, engine planes, haulage, pumps, aerial tramways, power plants, etc.
Prerequisite: M.E. 56.
Required of all students in fourth year.

62. **Ventilation.** 2 hrs lect. sec. half.

Gases found in mines, natural ventilation, artificial ventilation, mine resistance, airways and control of air current, splits, brattices, doors, regulators, disc and centrifugal fans, fan design, mine rescue.
Prerequisite: M.E. 56.
Required of fourth year students taking Coal Mining.

63. **Ore Dressing.** 2 hrs lect., 3 hrs lab. first half.

Gravity stamps, amalgamation and cyanidation, flotation, electromagnetic and electrostatic separators.
Prerequisite: M.E. 52.
Required of students taking Metal Mining.

64. **Mine Design.** 3 hrs lab. sec. half.

Layout and plant equipment for a mine; general and detail drawings showing method of mining, timbering, shaft station or pit bottom, head frame or tipple, screening plant or concentrating mill, etc. Report on the mine with approximate, quantities, costs, etc.
Required of all students in fourth year.

65. **Oil, Water and Gas Analysis.** 6 hrs lab. first half.

Laboratory work on analysis of mine gases and waters, boiler waters, etc.
Required of students taking Coal Mining.

DEPARTMENT OF MODERN LANGUAGES.

Professor Kerr, Professor Coar, Assistant Professor Sonet, Assistant Professor Bickersteth, Mr. Pelluet, Mr. Owen, Mr. de Savoye.

Students entering the University wishing to take French or German, but without training in these languages, will enrol in French A or German A as specified below.

French.

A **Introductory French.** 3 hrs.

Forms, elementary syntax; oral work; easy prose authors; prose composition.

Text-books: Kerr and Sonet, *French Grammar;* Labiche, *Voyage de Monsieur Perrichon.*

Junior Courses.

1. 2 hrs.

Modern French stories such as: Erckmann-Chatrian, Historie *d'un Conscrit de* 1813; Halévy, *L'abbé Constantin;* Daudet, *Lettres de mon Moulin;* Bazin, *Les Oberlé.*

Prerequisite: Matriculation French or Course A.

Course 1 constitutes with Course 3 the French requirements of the first year.

3. **Composition and Conversation.** 1 hr.

Text-books: Kerr and Sonet, *French Grammar*, Part II; Pelluet, *Thirty-four Graduated Lessons in French Conversation.*

Prerequisite: Matriculation French or Course A.

5. 2 hrs.

Modern French stories such as: Balzac, *Gobseck* (Modern French Series, Oxford); Mérimée, *Chronique de Charles IX;* Hugo, *Les Misérables;* Maupassant, *Contes;* Rostand, *Les Romanesques.*

Prerequisite: Grade XII French or Course 1.

Course 5 with Course 4 constitutes the French requirement for the second year.

4. **Composition and Conversation.** 1 hr.

Text-book: Guerra and Chicoteau: *La Grammaire en Histoires* (Dent).

Prerequisite: Grade XII French or Course 3.

41. Scientific French. 2 hrs.

(a) Authors. Introduction to the reading of scientific texts.
(b) Composition. Kerr and Sonet, *French Grammar.*

42. Scientific French; continuation of French 41.

(a) Authors. Advanced scientific and general texts.
(b) Composition. Kerr and Sonet, *French Grammar.*
Prerequisite: French 1 and 3 or French 41.

Senior Courses:

51. (a) Eighteenth Century. 2 hrs.

Montesquieu, *De l'esprit des lois;* Le Sage, *Turcaret;* Marivaux, *Comédies;* Voltaire, *Lettres philosophiques; Candide, L'ingenu and other selections; Théâtre;* Rousseau, *La Nouvelle Héloise; Emile, Le Contrat Social;* Diderot, *Extracts; The Encyclopaedists;* Beaumarchais, *Théâtre.*

(b) Composition and Oral Work. 1 hr.

Text-books: Auger, *Grammaire: Certificat d'Etudes.;* Mansion, *Histoire de la Littérature Française.*

52. (a) Nineteenth Century. Part 1. 2 hrs.

Chateaubriand, *Atala* and extracts from *Le Génie de Christianisme;* Victor Hugo, *Hernani, Notre Dame de Paris, Les Misérables;* De Vigny, *Servitude et grandeurs militaires;* Alfred de Musset, *Confessions d'un Enfant du Siècle;* George' Sand; Stendhal; A study of the poetry of the period through Berthon's *Specimens of Modern French Verse;* Lamartine, Victor Hugo, de Vigny, de Musset.

(b) Composition and Oral Work. 1 hr.

Text-books: Auger, *Grammaire: Certificat d'Etudes;* Mansion, *Histoire de la Littérature Française.*

53. (a) Nineteenth Century. Part 2. 2 hrs.

Balzac, *Eugenie Grandet;* Sainte-Beuve, *Essays;* Renan, *Souvenirs d'Enfance et Jeunesse;* Taine, *Les Origines de la France contemporaire;* Flaubert, *Mme. Bovary;* Gautier, *Voyage en Espagne;* Mérimée, *Colomba.* Selections from Maupassant and Zola. A study of the Parnassiens and of Baudelaire and Verlaine.

(b) Composition and Oral Work. 1 hr.

Text-books: Auger, *Grammaire: Certificat d'Etudes;* Mansion, *Histoire de la Littérature Française.*

54. **(a) French Literature in the XVII Century.** 2 hrs.
Introduction to the literature and thought of the Golden Age; selections from the works of the following authors: Molière, Corneille, Racine, Descartes, Pascal, Larochefoucauld, Madame de Lafayette, Madame de Sévigné, La Fontaine, Bossuet, La Bruyère.
(b) Composition and Oral Work. 1 hr.
Text-books: Auger, *Grammaire: Certificat d'Etudes;* Mansion, *Histoire de la Littérature Française.*
Not given in 1920-21.

Honours Courses.

101. **Romanic Philology.** 1 hr.
Introduction to historical phonology; reading of old French texts.
Prerequisite: Two of the following courses: 51, 52, 53, 54, 55.

102. **French Literature.** 2 hrs.
Study in a special field, discussions, reports, theses.
Prerequisite: Two of the following courses: 51, 52, 53, 54, 55.

German.

A **Introductory German.** 3 hrs.
Forms, elementary syntax, oral work, easy prose, and composition.

Junior Courses.

1. **Authors.** 2 hrs.
Short stories and plays, oral work.
Prerequisite: Matriculation German or Course A.
Course 1 constitutes with Course 3 the German requirement of the first year.

2. **Authors.** 2 hrs.
Modern German short stories with some reference to their stylistic qualities. Oral work.
Prerequisite: Grade XII or Course 1.
Course 2 constitutes with Course 4 the German requirement of the second year. p

3. Composition. 1 hr.

Grammatical review. Dictation, composition, and oral work based on the authors read in Course 1.
Prerequisite: Matriculation German or Course A.

4. Composition. 1 hr.

Special problems of Grammar and Syntax. Formation of words, etc. Oral work. Composition based on the authors read in Course 2.
Prerequisite: Grade XII or Course 3.

41. Scientific. 2 hrs.

Introduction to the reading of scientific texts.
Prerequisite: Matriculation German or Course A.
Not given 1920-21.

42. Scientific. 2 hrs.

Advanced scientific texts.
Prerequisite: Grade XII or Courses 1 and 3 or 41.
Not given in 1920-21.

Senior Courses.

51. 3 hrs.

German life and literature in the nineteenth century prior to the formation of the Empire.
Text-book: Coar's *German Literature in the Nineteenth Century*. Romanticism, Jung Deutschland, Realism, Sentimentalism.
Prerequisite: Courses 2 and 4.

52. 3 hrs.

German life and literature in the eighteenth century prior to Goethe and Schiller. Special reference to the influence of English and Romance literatures. Klopstock, Anacreontics, Lessing, Wieland, Herder.
Prerequisite: Courses 2 and 4.

53. 3 hrs.

German life and literature in the nineteenth century since the formation of the Empire. Nationalism, naturalism, symbolism.
Prerequisite: Either Course 51 or 52.

54. 3 hrs.

German life and literature from the French Revolution to the Napoleonic wars. Classicism, Goethe and Schiller; Romanticism, Fichte.
Prerequisite: Course 51 or 52, or 53.
Not given in 1920-21.

Honours Courses.

101. Germanic Philology. 3 hrs.

Middle High German, Historical Grammar; Paul's *Mittelhochdeutsche Grammatik*.
Prerequisite: Two of the following Courses: 51, 52, 53, 54.

102. German Literature. 3 hrs.

Study in a special field. Discussions, reports, thesis.
Prerequisite: Two of the following Courses: 51, 52, 53, 54.

Graduate Courses.

Graduate students desiring courses in German should consult the head of the department.

DEPARTMENT OF PATHOLOGY.

Professor Ower and Dr. Hall.

Senior Course.

51. General Pathology. 3 hrs lect., 1 hr lab. first half.
2 hrs lect., 4 hrs lab. sec. half.

A series of lectures on General Pathology. Laboratory work in Pathologic Histology. A short series of demonstrations of gross specimens. Postmortem examinations. Attendance at one autopsy required of each student.

DEPARTMENT OF PHARMACOLOGY

Dr. Collip and Dr. Bell.

Senior Course.

51. 1 hr lect., 3 hrs lab. first half.
1 hr lect., 2 hrs lab. sec. half.

A course in general Pharmacology.

DEPARTMENT OF PHARMACY.

Professor Gaetz and Mr. Dunn.

Junior Courses.

1. **General and Galenical Pharmacy.** 3 hrs lect.
History and literature; metrology; operations and appliances; preparations, plant constituents.

2. **Prescriptions and Dispensing.** 1 hr lect.

3. **Dispensing Pharmacy** (for Medical students). 1 hr sec. half.

4. **Practical Pharmacy.** 6 hrs lab.
Concurrent with Pharmacy 1 and 2; general technique; the manufacture of galenicals; typical alkaloidal extractions and assays; dispensing of prescriptions.

Senior Courses.

51. **General and Galenical.** 3 hrs lect.

52. **Prescriptions and Dispensing.** 1 hr lab.

54. **Practical Pharmacy.** . . 6 hrs lab.

55. **Advanced Practical Pharmacy.** 6 hrs lab.
Chemical methods of identification; determination of purity; analysis and synthesis of medicinal substances.

DEPARTMENT OF PHILOSOPHY.

Professor MacEachran and Mr. Berry.

Philosophy.

Junior Courses.

1. **Psychology and Logic.** 3 hrs.
This course takes up the general study of consciousness. It aims to train the student to observe the processes of his own experience and those of others. A general study of the nervous system and a careful analysis of sensations, perception, imagination, memory, and the higher mental processes (reasoning, etc.), will be taken up during the session.

2. **Psychology of Personality.** 3 hrs.
This course aims at providing the student with a knowledge of the psychological principles of interpretation of the facts of experience both in the individual and society.

Senior Courses.

51. **History of Philosophy (1).** 3 hrs.
Ancient, mediaeval, and modern philosophy up to Kant.

52. **History of Philosophy (2).** 3 hrs.
European philosophy from Kant to the present time.

53. **Contemporary Philosophy.** 3 hrs.
A study of recent tendencies in idealism, realism, pragmatism, and evolutionism.

54. **Ethics and Social Morality.** 3 hrs.
A study of the historical development of the moral standards in relation to social and economic conditions. The course is intended to familiarize the student with the main aspects of ethical history and theory.

Honours Courses.

Candidates for honours will take Courses 51 and 52, but a more intensive study will be required. In addition the following will be necessary.

101. **Greek Philosophy.** 2 hrs.
An advanced study of Plato and Aristotle.
Required of third year honours students.

102. **Modern Philosophy** (Idealism). 2 hrs.
An intensive study of Berkeley, Kant and Hegel.
Required of fourth year honours students.
Honours students will meet once a week to discuss problems of contemporary philosophy. Selected readings and essays will be prescribed.

Graduate Courses.

Students in Philosophy who have taken the work of the senior classes may take the following courses for the M.A. Degree:

103. An advanced course in one of the following: A period in the History of Philosophy, Logic, Ethics, Aesthetics, Metaphysics, the Philosophy of Religion.

Psychology.

Junior Courses.

1. See Philosophy 1. 3 hrs.

2. See Philosophy 2. 3 hrs.

Senior Courses.

51. **General and Social Psychology.** 3 hrs.
A detailed study of the development of individual and social behaviour.

52. **Comparative and Racial Psychology.** 3 hrs.
Evolution of mind and race culture.

53. **Medical Psychology.** 1 hr.

54. **Educational Psychology.** 3 hrs.
A study of the psychology of child development and the learning processes.

Honours and Graduate Courses.

Candidates for honours may take in addition to the general courses of the year one of the following, in which advanced and specialized work will be required.

101. **Physiological Psychology.**

102. **Abnormal Psychology.**

103. **The Psychology of Religion.**

104. **Experimental Psychology.**
These may also be taken as graduate courses.

Education.

Senior Courses.

51. **History and Philosophy of Education.** 3 hrs.

52. **Experimental Education.** 3 hrs.
Studies in the methodology of pedagogy.

DEPARTMENT OF PHYSICS.

Professor Boyle, Assistant Professor Smith and Mr. Lang.

Junior Courses.

1. **General Elementary Physics.** 3 hrs lect., 3 hrs lab.
Including the more important principles of mechanics, properties of matter, heat, sound, light, magnetism and electricity.
For first year Arts and Sciences, and Household Economics.

11. **General Elementary Physics.** 3 hrs lect., 3 hrs lab.
The same range as in Course 1, but more particularly applied to students of Medicine.
For first year Medicine, Dentistry and Pharmacy.

31. **General Elementary Physics.** 3 hrs lect., 3 hrs lab.
Range more restricted than Courses 1 and 2, and more particularly applied to students of Agriculture.
For first year Agriculture.

3. **(a) Properties of Matter, Molecular Mechanics and Heat.** 3 hrs lect., 3 hrs lab. first half.
(b) Sound and Light. 3 hrs lect., 3 hrs lab. sec. half.
For first year Engineering students and second year, or well prepared first year students of Arts and Sciences.

6. **Magnetism and Electricity.** 3 hrs lect., 3 hrs lab.
A course prerequisite to more advanced courses in electrical physics and in electrical engineering.
For first year Engineering students and second year students of Arts and Sciences.

8. **A Course on Special and Selected Topics.** 3 hrs lect., 3 hrs lab.
Introductory to the work of senior and honours classes.
For second year Arts and Sciences (if required).

12. **Optics and Radiation.** 3 hrs lect., 3 hrs lab.
More advanced than the same subjects in Courses 1 and 3, and introductory to the work of senior and honours classes.
For second year Arts and Sciences.

Senior Courses.

(Note.—For the year 1920-21, Physics 6, 8, and 12 may be taken as senior courses but not for honours.)

51. **Physical Optics.** 3 hrs lect., 3 hrs lab.

A course on Wave Theory, dealing especially with interference, diffraction, dispersion, polarisation, double refraction, and spectroscopy.

52. **Modern Electric and Atomic Physics Theory.** 3 hrs lect., 3 hrs lab.

53. **Electrical Physics.** 3 hrs lect., 3 hrs lab.

Of direct and alternating current circuits, electrical and magnetic testing, precision electrical measurements, principles of electric waves.

54. **A Course on Special Selected Topics.** 3 hrs lect., 3 hrs lab.

(If required.)

57. **Introduction to Mathematical Physics.** 3 hrs lect., 3 hrs lab.

Honours Courses.

Honours courses may be chosen from the senior courses by arrangement with the department.

DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY.

Professor Downs, Associate Professor Collip, Dr. Backus and Mr. Jackson.

Physiology.

Junior Course.

1. **General Physiology.** 2 hrs lect., 3 hrs lab.

Introductory lectures of a general character followed by a detailed study of the physiology of the circulation, respiration, renal function and lymph formation.

Senior Course.

51. **Advanced Physiology.** 3 hrs lect., 2 hrs lab. first half. 3 hrs lect., 4 hrs lab. sec. half.

The physiology of the organs of internal secretion. The physiology of the central nervous system and the special senses.

Biochemistry.

Junior Course.

1. Elementary Biochemistry.

3 hrs lect., 4 hrs lab. first half.
3 hrs lect., 7 hrs lab. sec. half.

Physical and chemical principles forming basis for general physiology; chemistry of food and proximate physiological compounds; enzyme action; digestion; metabolism; diet; nutrition; calorimetry; chemistry of physiological fluids, blood, urine, sweat, milk.

Senior Course.

51. Pathological Chemistry.

1 hr lect., 2 hrs lab. first half.
1 hr lect., 3 hrs lab. sec. half.

Detailed study of the chemistry of body fluids and tissues in health and disease; hydrogen ion and its significance; acidosis; alkalosis.

DEPARTMENT OF POLITICAL ECONOMY.

Professor MacGibbon.

Junior Courses.

1. Principles of Economics. 3 hrs.

A general introduction to the study of political economy.

Text-books: Gide, *Political Economy;* Smart, *An Introduction to the Theory of Value.* Assigned readings.

2. Elements of Political Economy. 2 hrs first half.

A brief introductory course open only to students registered in the faculties of Agriculture and Applied Science.

Text-book: Clay, *Economics for the General Reader.*

Senior Courses.

59. 3 hrs.

Equivalent to Course 1. Given 1920-21 for senior students.

64. Trade and Transportation. 3 hrs.

International trade, economic protectionism, international commercial policies, tariffs, transportation as a factor in international trade. Not given 1920-21.

65. Labor and Industrial Problems. 3 hrs.

The genesis of labor problems, the wage system, labor legislation, unemployment, agencies of industrial peace, scientific management, unionism, syndicalism.

66. Currency, Banking and Finance. 3 hrs.

The principles of money, monetary systems, commercial and investment banking, corporation finance.

67. Public Finance and Taxation. 3 hrs.

Public expenditures, budgets and budgetary legislation, public domains and public industries, taxation, public credit, provincial and local taxation.

68. Problems in Labor Management. 2 hrs sec. half.

Labor maintenance, scientific management, welfare institutions, strikes, methods of industrial peace, labor legislation, unionism.
Prerequisite: Course 2.

69. Corporation Finance. 1 hr sec. half.

The nature of corporations, their promotion, capitalization, financing, reorganization; holding companies; franchises; the taxation of corporations, business law.
Prerequisite: Course 2. Not given 1920-21.

70. An Introduction to Agricultural Economics.
2 hrs sec. half.

Special emphasis upon the problems of rural credits, marketing, co-operative organization and tenancy.
Prerequisite: Course 2.

Honours Courses.

101a. An Introduction to Political Theory. 1 hr.

Text-books: Leacock, *Introduction to Political Science.* For critical reading, Aristotle, *Politics;* Hobbes, *Leviathan;* Rousseau, *Social Contract;* Maine, *Ancient Law.*

102a. Modern Political Theory. 2 hrs first half.

A critical examination of the political theories underlying modern economic movements. The student will be required to read a selection of representative works bearing on laissez-faire, socialism, syndicalism, guild socialism, the control of monopolies, the position of corporate bodies within the state.

103a. Accountancy. 2 hrs first half.

A presentation of the general principles of accounting with a view to enabling the student in political economy to correctly and critically interpret accounts. Text-book: Hatfield, *Modern Accounting.*

104a. Research Problem.

A research problem will be assigned for class work in the second term and will be carried on in conference with and under the supervision of the instructor.

DEPARTMENT OF SOILS.

Dr. Wyatt.

Junior Courses.

1. Soil Physics and Management.

2 hrs lect., 4 hrs lab. first half.

Similar to Course 51; for those taking the three year course.

2. Soil Fertility and Fertilizers.

2 hrs lect., 4 hrs lab. sec. half.

Similar to Course 52; for those taking the three year course.

Senior Courses.

51. Soil Physics and Management.

2 hrs lect., 4 hrs lab. first half.

Origin of soil material; formation; classification; constituents, organic matter; moisture and its control; aeration; temperature; erosion; tillage of dry and irrigated lands; rotations.

52. Soil Fertility and Fertilizers.

2 hrs lect., 4 hrs lab. sec. half.

Yields as affected by fertility, rotations and different

systems of farming; composition and management of Canadian soils; composition and value of manures and fertilizers.

53. **Advanced Fertility.** 2 hrs lect., 4 hrs lab. first half. Special work with soils in which the student is interested; pot culture experiments; systematic study of investigational work from various experiment stations.

54. **Soil Bacteriology.** 2 hrs lect., 3 hrs lab. sec. half. Soil micro-organisms and factors influencing their activity; decomposition of crop residues and manures; nitrogen fixation and preservation; effect on insoluble plant foods.

55. **Irrigation and Drainage.** 2 hrs lect. sec. half. Character of water used for irrigation; time and amount of application; measurement and distribution; duty; removal of excess; control of alkali.

DEPARTMENT OF SURGERY.

Dr. Gray, Dr. Wilson and Dr. Munroe.

Senior Course.

51. **Surgery.** 1 hr lect., 2 hrs clin. Principles of surgery; clinical instruction in inflammatory processes, sepsis, haemorrhage, hernia, surgical landmarks, history taking, wounds, fractures, bandaging.

TOXICOLOGY.

Professor Gaetz and Mr. Dunn.

Junior Courses.

1. **General.** 1 hr first half. The nature and properties of poisons, their detection, and the application of "first aid" treatment.

DEPARTMENT OF VETERINARY SCIENCE.

Dr. Talbot (special lecturer).

Junior Courses.

1. **Elementary Agricultural Veterinary Science.** 1 hr lect. Anatomy, physiology, materia medica.
2. **Agricultural Veterinary Science.** 1 hr lect. Medicine and surgery parasitology, obstetrics.

Senior Courses.

51. **Advanced Agricultural Veterinary Science.**

DEPARTMENT OF PHYSICAL EDUCATION.

Duncan Albert MacRae,

Director.

Christine Louise Fabb,

Assistant Director.

The aim of the department is to contribute to health, organic vigour, and good physical habits, by providing an opportunity for every student to secure, under proper regulations, sufficient exercise as a balance to the sedentary demands of university lift, and to conserve the social and moral values of athletic games and sports. Work in this department is compulsory upon all students of the first and second years. At the beginning of each session there is a physical and medical examination of all students of these two years. Further, all candidates for teams in athletic sports must submit to a medical examination to determine their physical fitness to engage in such sports. The examination for men is conducted by the Director of Physical Education and the Director of Medical Services of the University, and the examination for women by the Assistant Director and the Director of Medical Services of the University. No other certificates are accepted.

Course 1. First year. 3 hrs.

Physical and medical examination; instruction and recreation to meet the physical requirements of the student at the beginning of the university course; exercise and practice in the fundamentals of athletic games, mass athletics, gymnasium class work.

Course 2. Second Year. 3 hrs.

Physical and medical examination; instruction and practice based on the work of Course 1, but of a more advanced nature.

Considerable latitude is allowed each student in choosing the form of exercise to be taken, the main factors governing the selection being: suitability of the exercise, physical condition of the individual, effective supervision, and regular participation. The Department, governed by the result of the physical and medical examination, reserves the right to sanction the student's choice.

DEPARTMENT OF EXTENSION.

Director, Albert Edward Ottewell, M.A.; Assistant Director, Donald Ewing Cameron, M.A.; Extension Librarian, Jessie Fleming Montgomery, B.A.

This department is organized to help those unable to attend regular university classes, and carries on work along the following lines:

EXTENSION LECTURES.

A limited number of extension lectures on various subjects may be arranged. No general plan is as yet ready to be put in operation, and any lectures undertaken must be by special arrangement with the Director of the Department of Extension.

DIVISION OF DEBATING AND PUBLIC DISCUSSION.

Outlines are published for the assistance of debaters and material on subjects of debates is lent by the University. This material is available to all residents of Alberta free of charge. To applicants from points outside of Province a charge of fifty cents is made for each package lent.

Material for debate has been prepared on the following subjects: Canadian Navy; Capital Punishment; Closed versus Open Shop; Co-education; Commission Government of Cities; Compulsory Military Service in Canada; Compulsory Military Training in Canada; Compulsory Social Insurance; Consolidated Rural Schools; Co-operative Banking, Co-operative Trading; Direct Legislation; Educational Qualification for Suffrage; Gary School Plan; Government Ownership of Railroads; Heredity versus Environment; Home Rule for Ireland; Imperial Federation; League of Nations; Literary Test for Immigrants; Military Training in Schools; Minimum Wage; Monroe Doctrine; Mothers' Pensions; Motion Pictures in Education, Place of; Municipal Ownership of Public Utilities; Oriental Immigration; Parliamentary versus Presidential Form of Government; Peace versus War; Platform versus Press; Prohibition; Proportional Representation; Protection versus Free Trade; Public Defender; Reciprocity with the United States; Rural versus City Life; Simplified Spelling; Single Tax; Socialism; Tractor versus Horse; Trade Unions; Woman Suffrage.

The department has also in course of preparation debating material on the following subjects:

Armament versus Disarmament;
Canadian Tariff;
Excess Profit Taxes, Their Influence on Individual Initiative and Industry;
Intensive versus Extensive Development of Alberta;
Limitation of Property Inheritance;
Religious Education in the Schools;
Responsibility of the State to its Citizens;
Soldier Settlement on the Land;
War Indemnities.

In addition, material has been provided on a large number of other subjects. A manual of instruction for debaters is also available.

In connection with this division a High School Debating League is organized year by year. Each year a large number of the high schools of the province has entered the league.

DIVISION OF TRAVELLING LIBRARIES.

Travelling libraries are lent to communities where no public libraries exist. For this purpose over seven thousand volumes are at present available. During the present session one hundred and ninety-three libraries have been in circulation. A special feature of this service is the open shelf list from which students may borrow individual volumes. A printed catalogue is supplied on application.

The department is extending this branch of its service and offers assistance to those who wish to do systematic reading in a particular field, literature, science, history, politics, sociology, etc. With the help of members of the University Faculty outlines on the desired subject will be prepared and reference books will be furnished from the open shelf library.

DIVISION OF VISUAL INSTRUCTION.

This division consists of:

A. Lantern Slide Service. The department has a lantern slide library of about one hundred and fifty sets of lantern slides, to which additions are continually made, accompanied by printed or typewritten lectures, as well as over

one thousand miscellaneous slides. Payment of express charges and the making good of loss or breakage is the only expense for this service. A list of lantern slide sets may be had on application.

B. Moving Picture Service. The system of moving pictures adopted and recommended by the Department of Extension is the Safety Standard, utilizing a practically non-inflammable film, and consequently free from insurance and other restrictions. Machines can be purchased from the Department at the lowest possible price. The Pathescope is for use in small schools and is equipped with a generator turned by hand. The Victor Safety Cinema operates successfully in larger halls up to 100 feet from the screen. It can be furnished for use, on 110 volt circuit, with Delco or other low voltage plant, or with twelve volt storage battery. Except in the latter case, motor drive is available. Film service is provided on a rental basis sufficient to take care of handling and depreciation, particulars of which will be furnished on request.

Any further information will be furnished upon application to—

THE DEPARTMENT OF EXTENSION,
University of Alberta,
Edmonton South, Alberta.

INDUSTRIAL LABORATORIES

James Alexander Kelso, M.Sc. (Queen's),
Director.

Cyprian Herbert Andrews, B.A. (Saskatchewan),
Assistant.

The Department of Industrial Laboratories operate fully equipped Chemical, Physical, Assay, Coal, Cement and Concrete Laboratories, etc., for the carrying out of all tests on materials. Investigations for the industries and for the development of the natural resources can be undertaken.

For complete information and schedule of fees apply to the Director.

DEPARTMENT OF CORRESPONDENCE COURSES.

Duncan Stewart MacKenzie,
Director of Teachers' Courses.

Janet M. McBratney,
Instructor in English, Latin, French and German.

Annie Norrington, B.Sc. (Manitoba),
Instructor in Science and History.

Mrs. E. T. Mitchell, M.Sc.,
Instructor in Mathematics.

The Correspondence Department offers instruction in the work of Grade XII. as laid down by the Provincial Department of Education. The object of the work is to encourage teachers who hold the Second Class certificate to pursue further academic study in preparation for the Grade XII examination. The successful completion of the Grade XII. course while giving the required academic standing for First Class certificate, will also give standing pro tanto for first year University courses.

Affiliated Colleges

ALBERTA COLLEGE SOUTH.

Theological College of the Methodist Church.

Government.

The management and direction of Alberta College are vested in a Board of Governors appointed every four years by the General Conference of the Methodist Church and incorporated by Act of Parliament.

The officers of the Board are:
Chairman—H. R. Smith, M.D.
Secretary—C. E. Race, B.A., C.A.
Treasurer—W. T. Henry.

Executive Committee—H. R. Smith, M.D.; C. E. Race, B.A., C.A.; W. T. Henry; Rev. A. R. Aldridge, B.A.; E. W. Allin, M.D.; Rev. T. C. Buchanan, D.D.; H. H. Crawford, M.L.A.; A. T. Cushing, B.A.; J. F. Fowler; Rev. F. S. McCall, B.A.; C. F. Newell, K.C.; Jas. Ramsey, M.L.A.; Hon. H. C. Taylor, M.A., LL.B.; Rev. A. S. Tuttle, M.A.

Faculty.

Rev. A. S. Tuttle, M.A., D.D., (Mt. Allison),
Principal, Professor of Philosophy of Religion.

Rev. A. D. Miller, M.A. (Toronto), B.D. (Victoria),
Professor of Old Testament Languages and Literature.

Rev. Clyo Jackson, M.A. (Toronto), B.D. (Victoria),
Professor of New Testament Literature.

Miss Nettie Burkholder, B.A. (Victoria),
Lady Principal, Lecturer in Sciences.

Rev. S. R. Laycock, B.A. (Toronto), M.A., B.D. (Alberta),
Lecturer in Classics, and Religious Education.

Mrs. Annie E. Race, B.A. (Toronto),
Lecturer in French and History.

(To be appointed).
Lecturer in Mathematics.

(To be appointed).
Lecturer in Elocution and Oratory.

Courses of Study.

Preparatory. Thorough courses of instruction are given in all subjects leading to matriculation into the University of Alberta, and to the Departmental Examinations in Grades X. and XI., for teachers. These studies are also required for entrance upon the study of Theology.

Theological. (a) Ordinary: A three-year course of study in Theological branches including certain required and optional subjects in Arts in the University of Alberta. The diploma of the College is conferred upon the completion of this course.

(b) Graduates': A more exacting course designed for those who have completed an Arts course before entering upon the study of Theology.

(c) Degree Course: Additional studies leading to the Degree of Bachelor of Divinity, conferred by the University of Alberta.

All Theological courses in Alberta College are open to students of other denominations with no discrimination.

Residence.

The College has one of the best residence buildings in Canada, capable of housing about 125 students, located on University grounds in a most fortunate relation to the University community. During the war the Dominion Government has used this building as a Military Convalescent Home, but it will be released in time for the College term of 1920-21.

During the last two years there has been a large increase in the number of students in the matriculation department. This department offers an especially good opportunity to those who must make up two or three subjects to gain full matriculation, as these may be carried in addition to University subjects, and thus time saved.

ROBERTSON COLLEGE.

Theological College of the Presbyterian Church.

This college was placed by action of the General Assembly of 1910 in connection with the Provincial University. The name, "Robertson College," was decided upon October 10th, 1911, to perp tuate the memory of the pioneer missionary Superintendent of Western Canada, the Rev. James Robertson, D.D.

Government.

The management and direction of Robertson College are vested in a Board of Management and Senate, appointed annually by the General Assembly, of which the following are the officers:

Board of Management.

Chairman—J. A. McDougall, Esq., Edmonton.
Vice-Chairman—R. J. Hutchings, Esq., Calgary.
Secretary—Hugh C. Anderson, Esq., Edmonton.
Treasurer—A. F. Ewing, Esq., B.A., K.C., M.L.A., Edmonton.
Assistant Treasurer—Rev. H. G. Rice, M.A., B.D., Edmonton.

Senate.

Chairman—Principal J. M. Millar, D.D.

Faculty for 1920-21.

Rev. J. M. Millar, M.A., B.D., D.D.,
Principal,
Professor of English Bible, and Religious Education.

Rev. A. T. Barnard, M.A., B.D.,
Head of Extra-Mural Department; Lecturer in Church History.

. . . . . .
Professor of Systematic Theology.

And the following professors of Alberta College:

Rev. A. S. Tuttle, M.A., D.D.,
Philosophy of Religion.

Rev. Clyo Jackson, M.A.,
Professor of New Testament Literature.

Rev. A. D. Miller, M.A., B.D.,
Professor of Old Testament Literature.

Rev. S. A. Laycock, M.A., B.D.,
Department of Religious Education.

Course in Theology.

. . The ordinary curriculum of study for the ministry of the Presbyterian Church demands the B.A. Degree (including Greek and Hebrew), and three years in Theology. Any course which does not include the B.A. Degree must be reported to the Board of Education of the Church.

Co-operation in Instruction.

The plan for co-operation in instruction is carried on by Robertson and Alberta Colleges with very gratifying results.

Courses for the Degree of B.D.

The degree of B.D. is granted by the University. The courses are given in the affiliated theologcial seminaries and approved by the University. For information as to subjects of study, text books, fees, etc., apply to Mr. C. E. Race, B.A., C.A., Registrar of the University.

The Degree of D.D.

The degree of Doctor of Divinity is conferred "honoris causa."

Extra-Mural Department.

During the session 1919-20 fourteen non-resident students were registered in this department. Information about the various courses will be sent upon application to Professor A. T. Barnard. The courses are arranged to suit the needs of men who cannot attend college, and students receive individual attention.

Library.

The library contains 4,000 volumes and is available for students, missionaries, missionary societies and ministers.

Residences.

Robertson College occupies at present three college houses in Edmonton South, purchased by the Board of Management and furnished by the efforts of the Women's Guild. Application for rooms for the session of 1920-21 should be made at once to Principal J. M. Millar, who should also be communicated with by those desiring calendars containing complete information about Robertson College.

During the session 1919-20 the number of students registered was nineteen. Two men graduated in Theology at the Spring Convocation, and two completed their studies extra-murally during the summer of 1919.

ST. AIDAN'S COLLEGE.

This college, operating under the authority of the Synod of the Anglican Diocese of Edmonton, was affiliated with the Provincial University, by resolution of the Senate, May 15, 1919.

Information regarding courses may be obtained on application to the Warden, the Right Reverend Henry Allen Gray, M.A., D.D., LL.D., Bishop of Edmonton.

AFFILIATED PREPARATORY SCHOOLS.

Under the regulations of the Senate, preparatory schools and colleges which send students to the University Matriculation Examinations are affiliated with the University.

Under this arrangement the following are affiliated institutions:

Western Canada College, Calgary.

Alberta College, Edmonton.

Westward Ho! College, Edmonton.

Mount Royal College, Calgary.

The University School, Calgary.

Alberta College (North), Edmonton.

Llanarthney School for Girls, Edmonton.

Students of the University of Alberta

SESSION 1919-20.

A—Faculty of Arts and Sciences; Accy—Accountancy, 1—First Year, Int—Intermediate, F—Final; Ag sp—Five months' course in Agriculture for returned soldiers; Arch—Architecture; Corr—Correspondence, Grade XII; D—Divinity; HEc—Household Economics; L—Faculty of Law; M—Faculty of Medicine; PhmL—Licentiate Course, Pharmacy; PhmL 1-yr—One-year Licentiate course, Pharmacy; PhmD—Degree Course, Pharmacy; Dent—Dentistry; S S—Summer School.

c—conditioned student; p—partial student; sp—special student; grad—graduate student. The numbers refer to the year.

Adam, Jas. D. ..... A L 2
Adam, W. A. ..... A 1
Adams, Miss H. J. ..... Corr
Adams, T. R. ..... Ag sp
Adorak, J. M. ..... Ag sp
Agnew, A. M. ..... c M 1
Ahenakew, E. ..... M 1
Ainlay, H. D. ..... p A 1
Alexander, Miss M. c A & H Ec 1
Alexander, N. E. ..... c M 1
Alfred, V. ..... L 1
Allan, D. H. ..... c A 2
Allen, Miss C. G. ..... Corr
Allen, G. H. ..... L 2
Allen, W. M. W. ..... Ag sp
Allison, E. F. ..... Ag sp
Allison, K. H. ..... c A 1
Allwork, C. T. ..... A 2
Anderson, Miss A. A. ..... A 3
Anderson, E. H. ..... A 4
Anderson, E. ..... Ag sp
Anderson, P. I. ..... Grad A
Anderson, R. L. ..... M 1
Anderson, R. ..... Ag sp
Andrews, C. H. ..... M 2
Appleton, H. ..... Grad A & Ag
Archibald, Miss M. C. ..... A 2
Arkin, J. I. ..... c A & L 2
Armstrong, F. ..... L 1
Armstrong, R. R. ..... c A 1
Armstrong, W. M. ..... Grad A
Armstrong, W. S. S. ..... M 1
Arthur, Miss J. M. ..... c A 2
Atkin, G. D. ..... L 3
Audley, G. H. ..... Ag sp
Auld, R. W. ..... Ag sp
Austin, Miss I. E. ..... c A 1
Austin, Miss S. H. ..... c A 1
Bissell, Miss I. B. ..... A & L 2
Bainbridge, J. W. ..... A 3
Bainbridge, S. ..... A 3
Baker, W. E. ..... M 1
Bakewell, Miss E. G. ..... A 3
Balaam, Miss R. V. ..... c A 1
Ball, J. E. ..... A 1 sp
Ball, Miss M. C. ..... Grad A
Ballantyne, Miss J. M. .. c A 2
Baltzan, H. L. .. c A & M 2
Banks, C. W. ..... A & M 3
Banks, W. C. ..... Ag sp
Bannerman, Miss H. J. ....c A 2
Barclay, Miss H. R. M. ..... L 3
Barclay, J. G. ..... Ag sp
Barclay, R. G. ..... Accy
Barker, Miss L. ..... c A 1
Barnecut, F. J. ..... A 3
Barnecut, R. ..... S 2
Barnes, S. ..... Ag 2
Barnett, S. L. ..... Ag sp
Basarab, J. E. ..... L 2
Bate, F. ..... Ag sp
Bates, F. W. ..... Ag sp
Batson, F. J. ..... S 4
Beard, W. A. ..... Ag sp
Beatty, L. G. ..... c A & M 1
Beck, C. F. ..... c A 1
Becker, C. ..... c A & L 4
Bell E. R. ..... c A & M 1
Bell, W. W. ..... M 2
Benke, F. W. ..... A 3 sp
Bercov, A. H. S. ..... M 1
Berman, D, ... A & M 3
Bertles, H. ..... PhmL 1
Beveridge, Miss B. ..... A 2
Biggs, Miss B. N. ..... Asp
Bishop, W. F. ..... Accy F

Black, Miss L. Y. ..... A & L 2
Blackmore, J. H. ..... Grad A
Blain, L. K. ..... A & L 3
Blain, Miss M. A. K. .... H Ec 1
Blair, S. M. ..... c A 1
Bliss, P. ..... Ag sp
Blow, H. F. ..... c M 1
Blow, Miss W. C. ..... A 3
Bonnell, L. W. ..... Ag sp
Botsford, Miss G. H. ..... Corr
Botsford, Miss N. ..... Corr
Bourcier, A. V. ..... c A & M 1
Bourus, V. M. ..... Ag sp
Boyd, J. ..... L 4
Boyle, H. A. ..... c M 1
Brabant, F. ..... Ag sp
Bradley, R. W. ..... c D 1
Bramwell, W. ..... Ag sp
Brayford, F. A. ..... Ag sp
Brayton, M. J. ..... c M 1
Broadus, Mrs. E. H. ..... A sp
Broadus, K. H. ..... A 2
Brodie, I. H. ..... M 3
Brooks, O. G. ..... S. S.
Brough, J. M. ..... Ag sp
Brown, C. K. ..... Ag sp
Brown, D. ..... Ag sp
Brown, J. ..... Ag sp
Brown, J. ..... A 1
Brown, K. F. ..... A 1 sp
Brown, M. ..... Grad A
Brown, P. S. ..... M 2
Brown, R. P. ..... A 1 sp
Brown, W. ..... c Arch 1
Browne, Miss E. B. J. .... Corr
Brushett, Miss E. B. ..... c A 1
Bryan, Miss H. A. ..... A 2
Bryan, W. C. ..... Phm L 1-yr
Bryant, L. W. ..... Ag 2
Bryden, Miss M. H. ..... c M 1
Bryden, R. B. ..... S 2
Buchanan, J. E. ..... Grad A
Buchanan, N. B. ..... L 2
Buck, W. ..... Ag sp
Buckingham, E. H. ..... Ag 2
Buckley, G. F. H. ..... Ag 3
Budd, W. S. ..... A & L 2
Burgess, J. A. ..... c A 1
Burgess, W. D. ..... c S 1
Burley, A. E. ..... L 3
Burns, S. R. ..... c L 1
Burrason, J. T. ..... Ag sp
Butchart, E. A. ..... c S 1
Butchart, H. T. ..... S 2
Butchart, Miss T. V. ..... A 2
Butler, F. H. ..... Accy 1
Butler, G. ..... Ag sp
Cain, Miss A. R. ..... A 2
Cain, Miss P. U. ..... A 2
Cairns, K. ..... c M 1
Cairns, L. Y. ..... L 3
Cameron, J. A. ..... A & S 2
Cameron, R. A. ..... A & L 1
Campbell, D. ..... L 3
Campbell, Miss E. H. ..... c A 1
Campbell, W. P. ..... A 1
Caniff, H. O. ..... M 1
Cannon, H. F. ..... M 1
Card, G. ..... Grad A
Carmichael, Miss B. .... HEc 2
Carmichael, H. ..... c S 2
Carruthers, W. C. ..... c D 1
Carscallen, H. M. ..... c S 1
Carscallen, W. F. ..... M 3
Carswell, J. A. ..... S 4
Cashman, Miss W. L. ... A 2 sp
Cassidy, Miss E. L. ..... S S
Cathro, Miss H. ..... A 2
Chadsey, C. L. ..... A & M 3
Chalmers, A. ..... Ag sp
Chalmers, Miss H. H. .. c A 2
Chandler, L. D. ..... c S 1
Charlesworth, G. S. .. A & M 2
Cheshire, C. G. ..... Ag sp
Chesney, W. ..... M 3
Chesnut, W. O. ..... M 2
Chinneck, C. G. ..... Ag sp
Christie, Miss C. ..... M 1
Christie, Miss P. C. ..... c M 1
Chrystal, Miss C. ..... A 3 p
Churchill, E. L. ..... A & Ag 1
Clark, G. H. ..... A 4
Clark, J. G. ..... Ag 2
Clark, R. E. ..... Grad A
Clarke, Miss P. ..... S S
Clarke, R. P. ..... A & L 4
Clarke, W. H. ..... Ag sp
Claxton, J. F. ..... Corr
Cleland, R. H. ..... c S 1
Clow, Miss F. B. ..... A 2
Cobbledick, D. W. ..... L 2
Cobbledick, L. H. ..... A 3
Collinge, T. W. ..... c L 1
Collins, Sr. E. ..... S S
Colquhoun, Miss H. ..... c A 2
Colter, R. K. ..... A 4
Colter, T. E. ..... Ag sp
Colville, J. ..... Ag sp
Colville, J. H. ..... S 1
Connery, E. ..... Ag sp

Connolly, J. A. ..... Corr
Cook, A. J. ..... A 4
Cooke, Miss A. E. ..... A 3
Cooke, F. ..... A 2 sp
Coonan, S. A. ..... Ag sp
Cooper, E. M. ..... M 3
Copeland, E. R. P. .. Phm D 2
Corbett, T. E. ..... M 3
Corin, F. ..... c M 1
Cory, W. A. ..... Phm L 1
Costigan, G. A. ..... L 2
Cowan, Miss K. S. ..... A 3
Cox, A. K. ..... S 1
Cragg, M. B. ..... Phm L 1-yr
Craig, Miss G. A. ..... A 4
Craig, K. L. ..... M 2
Crane, G. A. ..... Ag sp
Croisetiere, J. A. .... M 1 sp
Crosby, G. C. S. ..... L 2
Crozier, K. D. ..... A & Ag 1
Cuming, Miss E. ..... S S
Currie, D. ..... c A 1
Curtin, Miss G. M. ..... L 1
Dacres, H. S. ..... Ag sp
Dafoe, L. G. ..... L 1
Dake, Miss B. I. ..... A 3
Daly, C. ..... Corr
Daly, F. J. ..... c D 1
Daly, G. G. ..... c A & M 1
Darling, E. C. ..... L 3
Davidson, Miss J. M. ..... A 1
Davidson, J. R. ..... A 3
Davidson, Miss M. C. R. Arch 1
Davies, B. ..... Ag sp
Davies, J. ..... L 1
Davies, J. A. ..... c A & L 3
Davies, S. ..... A 1 sp
Davis, E. N. ..... A & L 3
Davis, M. F. ..... S 1 sp
Dawson, G. S. ..... c S 1
Dawson, H. R. ..... L 2
Day, H. L. ..... Ag sp
De Long, G. E. ..... Grad Ag
Devereaux, Miss M. A. .. A 2 p
Dickins, F. C. ..... A & L 4
Dickson, A. A. ..... A & L 2
Dier, H. H. ..... M 1
Diller, Miss D. ..... A 2
Dobry, Miss C. A. ..... A & L 3
Dobry, J. J. ..... A 1 p
Dobson, Mrs. M. S. ..... A 1 p
Dobson, W. ..... Grad A
Donaldson, A. ..... S 3
Donnelly, Miss C. ..... S S
Dorrance, F. S. ..... M 1
Doughty, J. L. ..... Ag 2
Douglas, R. G. ..... M 1
Douglas, W. S. ..... A 2 sp
Dowding, Miss E. S. .. PhmD 2
Dowler, H. A. ..... c D 1
Dowling, H. E. ..... c M 1
Drader, Miss N. B. ..... c A 3
Drake, W. R. ..... c A 1
Drake, W. V. ..... A 2
Draper, Miss J. E. ..... Corr
Drinnan, R. G. ..... c S 1
Duguid, F .M. ..... Phm L 1-yr
Duncan, A. F. ..... L 4
Duncan, Miss G. H. ..... A 4
Duncan, J. E. ..... S 3 sp
Dunham, Miss A. ..... A 4
Dunham, W. ..... A 4
Dunne, P. M. ..... L 4
Duthie, J. G. ..... c M 1
Dyer, R. ..... Ag sp
Dyer, T. M. ..... M 2
Eadie, W. W. ..... c M 1
East, M. H. ..... Corr
Eastwood, W. R. ..... Ag sp
Edgar, J. ..... Grad B.D.
Edwards, C. G. ..... c A 2
Edwards, E. W. ..... c D 1
Edwards, Miss H. S. ... Grad A
Edwards, M. J. ..... L 1
Edworthy, S. ..... A 2
Eggen, R. ..... Phm L 1
Einarson, G. ..... A 3
Elder, Miss H. F. ..... L 1
Ellinger, C. ..... Ag sp
Ellis, H. ..... Ag sp
Emery, E. D. ..... M 3
Emery, H. T. ..... A & L 4
English, J. F. K. ..... A & M 2
Erswell, A. H. ... Phm L 1-yr
Esdale, J. L. ..... p Phm L 1-yr
Esdale, W. C. ..... Ag 1
Evans, H. ..... c A 1
Evans, R. W. ..... A 2
Everett, T. M. ..... Ag sp
Fanjoy, W. T. ..... S 1
Farrow, N. A. .. Phm L 1-yr
Fear, G. ..... Ag sp
Fennings, D. B. ..... Ag sp
Ferguson, A. W. ..... A 1 sp
Ferguson, G. V. ..... A 2
Ferguson, R. ..... L 1
Fergusson, Miss K. ..... A 4
Fergusson, Miss L. M. ..... A 3
Fetter, R. E. ..... A & S 2
Fieldhouse, T. A. ..... Ag sp

Fife, J. K. ..... M 1
Figsby, H. E. ..... Accy-int
Findlater, S. ..... Ag sp
Fisher, F. S. ..... S 1
Fisher, Miss H. M. F. .... L 3
Fisher, T. E. ..... S 1
Fitzsimmons, R. D. .. A & L 3
Flack, G. L. .... Grad A
Flack, S. G. ..... A 1
Fleming, W. M. ..... Grad A
Fletcher, T. ..... Corr
Ford, F. A. ..... A & L 2
Forster, R. P. ..... A 4
Fortier, Sr. H. ..... S S
Fowler, Miss M. ..... Corr
Frame, W. E. ..... A 2
Francis, A. C. ..... A 3
Francis, S. A. M. ..... A 4
Franks, G. S. ..... Ag sp
Fraser, A. A. ..... S 1
Fraser, Miss B. K. ..... A 4
Fraser, H. B. ..... L 4
Fraser, Miss L. M. .... HEc 2
Fraser, Miss O. D. ... Phm D 2
Fraser, S. D. ..... A 1
Frazer, Miss I. B. ..... A 1
Frith, Miss D. N. ..... A 2
Fry, A. G. ..... Accy F
Fulcher, H. A. ..... Ag sp
Fulmer, F. D. ..... M 1
Fuog, Miss A. ..... A 3
Fyfe, E. W. R. ..... Ag sp
Gaetz, H. R. ..... Phm D 3
Gaetz, J. R. ..... Ag 2
Gaetz, L. H. ..... Accy Int
Gaetz, T. H. ..... M 1
Gaines, Miss E. M. ..... Corr
Gallay, Miss M. ..... A & M 2
Garbutt, Miss A. E. .. Phm D 3
Gardner, Miss B. D. ..... A 3
Gardner, E. W. ..... A 3
Garrioch, H. G. ..... M 2
Garside, T. E. ..... L 4
Geeson, J. R. ..... Grad B. D.
Gerber, C. C. ..... L 1
Gerber, R. A. ..... L 1
German, L. E. ..... M 2
Gerrie, Miss C. C. ..... A 1
Gibson, A. B. ..... L 2
Gibson, R. A. ..... Ag sp
Gidman, W. G. ..... S 1
Giffen, A. D. ..... Arch 2
Giffen, Miss B. ..... A 3
Giles, Miss M. C. ..... A 3
Gillis, Miss N. ..... M 2
Gilmour, Miss J. F. ..... A 2
Gimpel, S. ..... M 1
Gladwin, B. S. ..... Ag sp
Glanville, A. T. ..... L 4
Glanville, T. J. ..... c A 1
Goldstein, G. R. ..... M 1
Goldstein, N. B. ..... c L 1
Good, L. ..... A 3
Goodall, Miss A. M. .... c M 1
Goodman, E. ..... L 1
Goodwin, Miss E. B. .... c A 1
Goodwin, Miss L. A. ..... A 1
Goodwin, R. O. ..... Ag sp
Gordon, C. L. ..... A 2
Gordon, J. ..... Ag sp
Gordon, R. M. ..... Ag sp
Gourley, Miss M. R. .... Corr
Graham, G. ..... Ag sp
Graham, H. ..... A 1 sp
Graham, Miss M. K. ..... A 2
Grant, D. R. ..... c M 1
Grant, E. G. ..... c M 1
Grant, J. W. ..... c M 1
Gratz, R. P. ..... Ag 2
Gray, F. W. ..... A 3
Gray, J. F. ..... Phm L 1
Green, H. T. ..... Ag sp
Green, W. ..... Ag sp
Griggs, Miss V. A. ..... Corr
Grimmett, Miss K. E. ..... M 2
Grimmett, R. S. ..... M 3
Grimmett, T. T. ..... L 1
Grimson, J. .... c M 1
Grindley, T. W. ..... c A 1
Gross, P. L. ..... c A 1
Gudgeon, F. H. ..... A & L 1
Guenther, H. G. ..... Ag 1
Guild, Miss I. M. ..... Corr
Gundesen, C. .. .. M 3
Hales, F. H. ..... Ag sp
Hall, Miss F. ..... S S
Hall, Miss M. I. ..... A 3
Hamilton, E. J. ..... c A 1
Hamilton, Miss J. M. A & M 2
Hamilton, S. P. ..... A 3
Hamilton, S. ..... c A 1
Hamilton, T. F. ..... c S 1
Hamilton, W. S. ..... D 1
Hamman, H. A. ..... M 2
Hanks, A. J. ..... Ag sp
Hanna, W. F. ..... Ag 1
Hardey, Miss M. S. ..... c A 1
Hardin, N. M. ..... c A & M 2
Harmer, R. M. ..... c D 1
Harris, H. L. ..... c A & M 2

Harrison, J. E. ..... M 2
Harrison, R. W. ..... S S
Hart, T. ..... c A 2
Haw, J. L. ..... S 1
Hay, A. S. ..... Ag sp
Hay, Miss E. L. ..... Corr
Heald, J. E. F. ..... A 3 sp
Heathcote, Miss E. M. ..... S S
Hegler, Miss B. E. ..... p A 1
Hegler, Miss F. H. ..... c A 1
Henderson, E. ..... Accy Int
Henderson, Miss F. C. ..... A 4
Hennessy, Miss J. P. . c Phm D 1
Henry, H. ..... L 1
Henry, W. A. ..... c A& M 2
Herbert, W. B. ..... A & L 1
Heron, R. W. ..... Ag sp
Hewko, P. ..... c A & L 1
Hibbard, Miss A. ..... A 3
Hibbard, R. J. B. ..... A & L 3
Hickey, Sr. E. ..... S S
Hicks, R. A. ..... c M 1
Hiebert, J. C. ..... L 3
Hill, W. H. ..... Phm L 1
Hillerud, S. C. ..... Ag 3
Hinson, A. ..... Ag sp
Hipkin, G. A. ..... Grad A
Hollies, E G. ..... A 3
Hollies, R. T. ..... S 4
Hollinshead, G. F. ..... Phm D 3
Hollinshead, J. L. ..... c A 1
Holmes, Miss G. V. ..... M 3
Holmes, E. E. ..... Ag sp
Hoover, J. N. ..... M 2
Hoover, R. E. ..... c A 1
Hopkins, Miss J. ..... A 2 sp
Hotson, Miss H. J. ..... A 4
Hotson, Miss M. H. . . Grad A
Hryhorovich. A. ... . M 1
Huckell, R. G. ..... M 1
Hughes, E. ..... S 3 sp
Hull, G. ..... Phm L 1-yr
Hull, Miss L. M. ..... A 4
Hulvey, G. E. ..... Ag sp
Hume, J. P. ..... Ag sp
Hummon, D. M. ..... Ag 1
Humphry, I. P. ..... Ag sp
Hunter, A. P. ..... Ag 2
Hunter, E. T. ..... S 2
Hurst, D. D. ..... Ag sp
Husband, Miss L. E. ..... A 3
Hustler, C. F. ..... A 4
Hyde, E. E. ..... Grad A
Hyde, J. S. ..... A 1 sp
Hyndman, Miss T. A. ..... A 2

Irving, Miss M. L. ..... A 4
Irwin, P. S. ..... M 2
Jackson, Miss G. ..... A 3
Jackson, J. L. ..... M 3
Jackson, Miss L. E ..... A 2
Jacobson, W. L. ..... Ag 3
Jaffray, S. K. ..... S 3
James, Miss N. ..... A 3
James, R. E. ..... Ag sp
Jampolsky, Moses ..... M 2
Jarman, Miss H. G. ..... c A 1
Jarrett, G. S. ..... S 2
Jarrett, W. A. ..... A & M 1
Jean Richard, M. E. ..... A 1
Jeffery, A. ..... Ag sp
Jenkins, G. ..... Ag sp
Jenkins, L. J. ..... Ag sp
Jensen, J. C. ..... S 1
Jerome, J. ..... Ag sp
Jewitt, W. G. ..... S 1
Johns, C. K. ..... Ag sp
Johnson, Miss G. G. ..... A 4
Johnson, G. ..... Ag sp
Johnson, H. C. ..... L 2
Johnston, R. E. ..... M 1
Johnstone, J. T. ..... Ag sp
Johnstone, Miss W. R. ..... Corr
Johnstone, W. S. ..... Accy F
Jones, E. L. ..... p S 2
Jones, F. W. ..... M 3
Jones, I. W. ..... A & S 2
Jones, J. I. ..... L 2
Jones, J. T. ..... A 3
Jones, R. E. ..... c A 1
Jones, S. ..... Ag sp
Joyce, Miss A. F. ..... Corr
Kain, J. K. ..... Corr
Kain, Miss K. M. ..... Corr
Kain, Miss M. M. ..... Corr
Kane, E. W. S. ..... A & L 4
Kask, Miss M. K. ..... c A 2
Keith, Miss H. D. ... A & M 2
Kelly, Miss Q. B. ..... A 2
Kelly, W. A. ..... A & L 3
Kemp, A. T. ..... Ag 1
Kemp, E. G. ..... c D 2
Kennedy, Miss A. ..... c A 2
Kenny, W. G. ..... M 2
Kerr, Miss H. N. ..... A 2
Kibzey, A. T. ..... M 3
Kierman, B. ..... Ag sp
Killduff, Miss D. A. ..... Corr
Kilgour, C. S. ..... Accy F
Kingston, F. G. ..... Ag sp
Kingston, Miss S. J. ..... Corr

Kinnaird, G. D. K. ..... Accy Int
Kirk, J. E. ..... A 3
Kirkpatrick, R. A. ..... c S 1
Kline, M. ..... c D 1
Knutson, J. ..... Ag sp
Koenig, Miss L. D. ..... A 2
Kostash, H. A. ..... A & S 3
Kronick, T. R. ..... L 2
Kruger, W. C. ..... M 2
Kubanek, J. L. ..... p A 1
LaFleche, Miss H. M. ..... A 2
LaFleche, L. F. ..... c A 1
Laidlaw, J. B. ..... p A 1
Lake, Miss E. M. ..... Grad A
Lamb, R. L. ..... A & L 1
Lane, A. J. ..... Ag sp
Lang, F. J. ..... Phm L 1
Lang, J. W. ..... M 2
Lang, W. ..... Ag sp
Lang, W. A. ..... c A 1
Langford, G. B. ..... S 1
Lattimer, J. E. ..... Grad A sp
Laurence, C. ..... Ag sp
Law, F. ..... c M 1
Lawlor, T. W. ..... L 4
Lawrence, Miss B. ..... A 3
Lawton, W. R. ..... c S 1
Laycock, S. R. ..... Grad B.D.
Lebourveau, H. B. ..... S 1
Lecouffe, Miss B. ..... Corr
Lee, Miss V. V. ..... Grad A
Lefsrud, A. ..... A 3 p
Lefsrud, S. ..... A 2
Legate, M. C. ..... S S
Lehmann, J. F. ..... A 4
LePage, G. F. ..... A & L 2
Letourneau, J. W. ..... A 1
Lewis, G. M. ..... M 1
Lewis, J. W. ..... S 3
Liddle, A. ..... Ag sp
Liesemer, E. J. ..... c M 1
Liesemer, E. N. ..... c A 1
Lillico, R. S. B. ..... S 4
Logan, P. E. ..... M 3
Lonsdale, T. H. ..... Grad B.D
Lougheed, E. ..... A 4
Love, J. R. ..... A 4
Lowe, J. G. ..... Ag sp
Luckovitch, M. ..... L 2
Lukaschuk, H. R. ..... A & M 1
Lyster, P. A. M. ..... M 3
Lyttle, R. H. ..... A 2 sp
McAllister, C. B. ..... Ag 2
McAllister, J. A. ..... S 2
McAllister, T. H. ..... A 2 sp
McArthur, H. ..... Ag 1
McBain, A. ..... Ag sp
McBride, J. B. ..... L sp
McBrine, A. R. ..... c A & L 2
McCabe, J. O. ..... A 2
Macaulay, A. F. ..... A & M 2
McCaulay, W. C. ..... A 1
McCleary, C. H. ..... c A & S 1
McClung, J. W. ..... A 1
McColl, M. B. ..... Ag 1
McColman, C. ..... Ag sp
McConnell, A. H. ..... c A L
McCosham, Miss R. A. H. ..... c A & L 2
McCowan, J. W. ..... Ag sp
MacDonald, A. W. C. ..... L 1
MacDonald, D. A. ..... c A 1
MacDonald, D. W. ..... A 1 sp
Macdonald, E. ..... A & M 2
Macdonald, Miss E. I. ..... Corr
Macdonald, H. J. ..... A & L 3
Macdonald, J. ..... Ag 1
Macdonald, J. A. ..... A 1 sp
MacDonald, J. A. ..... Ag sp
MacDonald, J. N. ..... Grad S sp
Macdonald, S. B. ..... Phm L 1
MacDonald, S. E. ..... Corr
MacDonald, W. ..... S 2
MacDonald, W. D. ..... Ag 1
McDonnell, R. W. ..... Ag sp
MacDougall, J. C. ..... A 1
MacDougall, W. D. ..... A 1 p
McFarland, Miss C. ..... A 4
McGachie, P. G. ..... c D 1
McGee, J. A. ..... L 1
McGibbon, Mrs. B. ..... M 2
McGillivray, A. D. ..... S 3
McGillivray, Mrs. F. ..... A1 sp
McGillivray, R. B. ..... A 4
MacGregor, A. D. ..... c D 1
MacGregor, H. A. ..... Corr
MacGregor, J. A. ..... c A 1
McGregor, Miss L. C. ..... M 1
McGuire, J. ..... S S
McGuire, J. ..... Ag sp
McGuire, J. ..... A 2
McGuire, J. A. ..... A & L 2
McHaffie, R. ..... S 2
McHugh, A. H. ..... Ag sp
McIntosh, Miss J. L. ..... A 3
McKay, A. ..... Ag sp
McKay, E. R. W. ..... Phm D 1
McKay, J. A. ..... A 1
MacKay, W. ..... A & L 3
MacKay, W. A. ..... M 2

McKee, W. O. ..... Ag sp
McKelvey, J. ..... A 1 sp
McKercher, L. E. ..... c L 3
McKernan, H. P. ..... S 1
McKibbin, R. ..... D 1
McKinnon, C. ..... c M 1
McKinnon, Miss E. C. ... HEc 3
McKinnon, W. S. ... PhmL 1-yr
McKinven, G ..... Ag sp
McKittrick, Miss E. A. ... A 2
McKittrick, E. S. ..... S 4
McLachlan, A. H. ..... L 1
MacLaren, Miss G. ..... c A 1
MacLaren, R. F. ..... L 2
McLaughlin, Miss C. E. .. A 3
McLaurin, C. C. ..... L 2
McLean, E. G. ..... A 1 sp
McLean, E. L. ..... A 1 sp
McLean, H. ..... Ag sp
McLean, Miss M. ..... M 3
MacLennan, Miss R. ..... A 1
MacLennan, Miss S. I. ..... A 3
MacLeod, A. ..... Ag sp
McLeod, D. ..... S 1
McLeod, D. A. ..... D 2
McLeod, E. C. ..... M 3
MacLeod, M. ..... A 3
McLeod, N. M. ..... S 1
McLeod, S. H. ..... M 2
McLuhan, R. G. ..... c M 1
McMachen, W. L. ..... c D 1
McMillan, J. ..... A 1
McMillan, Miss J. E. ..... A 2
McMillan, Miss M. A. .. A 1 sp
MacMillan, W. A. ..... c S 1
McNab, Miss M. ..... A 2 sp
McNamara, Sr. B. ..... Grad A
McNamara, Sr. E. ..... Grad A
McNaught, R. A. ..... A 4
McPherson, J. M. ..... Ag sp
McPherson, R. ..... Ag sp
McQueen, Miss C. C. ..... A 2
McQueen, Miss J. ..... A 2
McQueen, R. ..... Grad A
McQuillan, R. ..... Corr
McRae, A. L. ..... M 1
McRae, Miss I. F. ..... c A 1
McVicar, H. ..... Ag sp
Maddams, F. J. ..... Ag sp
Magrath, A. L. ..... A 1 sp
Mahaffy, J. D. C. ..... A & L 2
Mahood, J. E. ..... PhmL 1 yr
Mair, B. J. ..... A &S 2
Malcolmson, Miss A. N. .. A 3
Mallett, M. ..... M 1
Manning A. H. ..... A 2
Manning, F. C. ..... c D 1
Manson, W. G. ..... Corr
Manzer, H. L. ..... A 4
Marchant, H. B. ..... Ag sp
Markle, C. G. ..... c S 2
Marleau, W. F. ..... c S 1
Marshall, E. J. ..... Ag sp
Marshall, J. C. M. .. c A & L 1
Marshall, Miss L. W. ..... c A 1
Marshall, S. ..... c A 1
Marshall, T. G. ..... A 2 sp
Marshall, W. C. ..... Accy F
Martin, D. Q. ..... A & L 1
Martin, Miss E. M. ..... A 1
Martin, J. N. ..... Ag 3
Martin, R. F. ..... Ag sp
Mather, T. H. ..... Ag 1
Mattern, L. ..... Grad A
Matthews, A. W. ... Phm D 3
Matthews, H. ..... Ag sp
Meagher, J. E. ..... Ag 2
Melling, P. ..... M 2
Meneely, A. H. ..... M 2
Michener, D. R. ..... A 4
Mickelson, Miss M. C. .... c A 1
Might, A. E. ..... A 3
Millar, C. ..... c M 1
Millar, E. J. ..... M 3
Miller, Miss A. R. ..... A 2
Miller, Miss C. E. ..... c A 1
Miller, L. V. ..... S 4
Miller, R. P. ..... A 4
Millican, H. ..... L 3
Mills, R. A. ..... L 2
Milne, P. T. M. ..... c A 1
Minear, Miss A. I. ..... Corr
Miskew, P. A. ..... c A & L 2
Mitchell, J. ..... Ag sp
Montgomery, Miss J. F... Grad A
Moody, H. S. ..... A 1
Moore, G. C. L. ..... A & L 3
Moore, Miss H. H. M. .. A 2
Moore, L. D. ..... c M 1
Moraw, L. S. ..... c A & L 3
Morecombe, P. F. G. GradA&B.D.
Morgan, A. R. ..... A 2
Morris, A. ..... Ag sp
Morris, J. H. ..... S 1
Morris, W. D. ..... M 1
Morrison, C. ..... Ag sp
Morrison, W. ..... A 2 sp
Morrow, R. J. ..... c M 1
Morvan, Miss M. C. ..... S S
Moss, R. W. ..... A 1

Mothersill, J. D. O. ..... L 3
Muir, C. K. ..... A & S 1
Mulhall, T. J. ..... Phm L 1
Munro, A. M. ..... Grad S
Murphy, F. J. ..... M 1
Murray, Sr. J. ..... S S
Murray, S. M. A. ..... Corr
Musto, T. ..... M 1
Nash, Miss D. I. ..... Corr
Nesbitt, Miss E. ..... M 3
Nettles, W. H. ..... S 1 sp
Neville, R. H. ..... Ag sp
Newby, H. ..... Ag sp
Newland, H. C. ..... L 4
Newton, M. G. ..... A 1 sp
Nicholson, A. S. ..... A & M 1
Nicoll, J. Mc. ..... A & S 3
Nicoll, Miss J. K. ..... A 3
Niddrie, J. G. F. ..... Grad A
Nielson, S. ..... A 2
Norris, A. ..... Ag sp
O'Brien, J. H. ..... Ag sp
O'Brien, J. W. ..... A 1
O'Connor, Mrs. G. B. .... A sp
O'Connor, Miss M. A. ..... S S
O'Connor, Miss S. J. ..... L 3
O'Connor, T. J. ..... L 4
Ogilvie, J. H. ..... L 3
O'Grady, G. L. ..... S S
Ogston, A. W. ..... A 2
Orriss, P. ..... Ag sp
Owen, P. ..... A 1 sp
Owre, V. A. ..... A 1 sp
Page, P. ..... L 1
Palmer, M. B. ..... A & Accy 1
Palmer, P. B. ..... Ag sp
Pardon, E. H. ..... Ag sp
Parker, J. A. ..... M 3
Parker, R. F. ..... A 3
Parker, S. ..... c A 1
Parkinson, R. G. ..... c M 1
Parney, G. ..... A & L 3
Patterson, A. B. ..... L 3
Patterson, C. R. ..... A 3
Patterson, E. G. ..... S 1
Patterson, G. E. ..... L 3
Patteson, T. E. H. .... PhmL 2
Pattullo, Miss C. B. ..... Corr
Pattullo, J. A. ..... Corr
Pawling, H. M. ..... c A 2
Pawluk, P. ..... c M 1
Peacock, G. W. ..... c A & L 1
Pearce, H. J. L. ..... Ag sp
Pearse, H. A. ..... M 3
Pearson, C. R. ..... Corr
Pearson, J. A. ..... Ag sp
Pegrum, D. F. ..... A 2
Pennock, F. B. .. L 2 & Grad A
Pentland, Miss L. G. ..... A 3
Phelps, P. ..... c M 1
Phillip, S. ..... M 1
Phillips, E. W. ..... Ag 1
Philp, D. F. ..... A & M 2
Piercy, J. E. ..... c M 1
Pinder, C. S. ..... A 1 sp
Playter, Miss G. A. ..... L 3
Plumb, J. ..... Ag sp
Plummer, N. M. ..... L 2
Pollard, Miss D. F. ..... A 1
Pollard, J. E. ..... Ag sp
Ponton, G. P. ..... c M 1
Ponton, Miss J. ..... A 3 sp
Poole, Miss M. M. ..... A 3
Poole, W. N. ..... L 1
Porteous, Miss D. O. ..... A 4
Porter, F. A. ..... c M 1
Poulson, G. L. ..... Ag sp
Power, Miss S. K ..... A 1 sp
Powlett, C. H. A. ..... L 1
Proctor, J. A. ..... Ag sp
Puffer, S. A. ..... L 2
Putland, A. K. ..... c A 2
Putland, Mrs. F. ..... A sp
Rainey, E. J. ..... A 3 sp
Rankin, G. C. ..... M 1 sp
Rankin, J. D. ..... c A & S 1
Raver, Miss H. J. ..... A 3
Raver, Miss I. C. ..... M 1
Raymond, C. ..... Corr
Redden, A. E. ..... Ag sp
Redel, W. ..... M 3
Redfern, G. ..... Ag sp
Rehwinkel, A. ..... L 1
Reid, A. ..... Ag sp
Reid, C. D. ..... S 2
Reid, Miss M. F. ..... A 2 sp
Reilly, C. F. ..... S 4
Rein, Miss R. ..... L 2
Reinhorn, C. G. ..... M 3
Revell, J. E. ..... M 1
Rhynes, B. J. ..... PhmL 1-yr
Richards, Miss D. F. ..... A 1
Richards, F. H. ..... Ag sp
Richards, Miss G. B. ..... Corr
Richards, R. P. ..... L 2
Richards, R. ..... S 2
Richards, W. C. ..... A 2
Richardson, F. J. ..... L 3
Riches, P. L. F. ..... A & L 3
Rideout, Miss F. M. ..... D 1

Riley, F. R. ..... L 3
Roach, J. R. ..... Ag sp
Roach, Miss L. E. ..... Corr
Robertson, Miss M. ..... A
Robeson, W. R. ..... Corr
Robinson, C. R. ..... A 3
Robinson, V. B. ..... Ag 3
Robinson, Miss V. B. ..... A 2
Robison, S. C. ..... Ag 1
Robson, Miss H .M. ..... A 3
Rogers, Miss H. H. ..... A 1
Ronning, N. T. ..... Grad A
Rookwood, M. ..... Phm D 3
Rose, P. B. ..... Accy F
Roseborough, A. S. ..... M 1 sp
Roseborough, A. W. ..... Corr
Roth, Miss E. I. ..... c HEc 1
Rouillard, Sr. C. ..... S S
Routledge, G. L. ..... c M 1
Rowsell, S. A. ..... Phm L 1
Rudd, F. A. ..... c A 1
Rudin, L. ..... M 2
Rudyk, J. P. ..... c L 1
Russell, A. C. ..... Accy Int
Russell, J. G. ..... L 2
Russell, Miss M. B. ..... A 2
Rutherford, R. L. ..... Grad A
Ryan, Miss J. E. ..... A & L 2
Sampson, C. V. ..... PhmL 1
Sampson, J. A. ..... D 1
Sanderson, J. O. G. ..... A 2
Sandin, R B. ..... Grad sp
Sands, H. J. ..... Ag sp
Sanford, G. B. ..... Ag 3
Sarvis, E. S. ..... M 3
Sawula, S. ..... L 2
Sayers, J. H. ..... L 3
Schade, Miss C. A. .... PhmL 2
Schepp, Miss E. ..... A 2
Schill, Miss C. A. ..... Corr
Schulstad, Miss M. H. .. c A 1
Scott, Miss L. M. .... c PhmD 2
Scott, N. ..... S 2
Scott, P. C. ..... L 3
Scroggie, A. G. ..... A 2
Secord, Miss K. ..... c A & M 1
Secord, Miss M. I. .... c A & L 1
Sereth, Miss C. ..... A & L 3
Sereth, G. ..... A & L 4
Service, S. F. ..... M 3
Shanks, Miss M. S. .. c A & M 1
Shardlow, W. A. ..... Ag sp
Shaw, Miss M. E. ..... c A 1
Sheppard, R. J. ..... Ag sp
Sherwood, Miss A. ..... c A 1
Siebrasse, Miss G. W. ..... Corr
Siggs, G. A. ..... Ag sp
Sillak, J. G. ..... A & L 3
Simenstin, Miss G. .. c A & M 2
Simmons, Miss M. J. ..... A 1
Simmons, R. L. ..... c M 1
Simpkin, D. B. ..... S 3
Simpson, A. ..... L 2
Simpson, A. M. .... c A & M 2
Simpson, D. S. ..... A 1
Simpson, Miss G. S. ..... HEc 1
Simpson, Miss M. S. ..... A 3
Simpson, R. G. ..... Ag sp
Simpson, R. H. ..... Ag sp
Simpson, R. H. ..... c A 1
Sinclair, A. S. ..... c M 1
Sinclair, D. C. ..... L 1
Sindon, D. C. ..... L 1
Sissons, J. H. ..... L 3
Skiles, D. C. ..... c A 1
Skorey, Miss H. V. ..... c A 1
Smith, Miss A. M. ..... Corr
Smith, G. ..... Ag sp
Smith, J. D. ..... Ag sp
Smith, K. ..... A 3
Smith, Miss L. A. ..... c A 2
Smith, S. B. ..... L 2
Smith, W. L. ..... Grad A
Smithers, G .T. ..... S 3
Snider, E. C. ..... A & L 3
Sokvitne, O. L. ..... c M 1
Souter, L. C. R. ..... c A 1
Sparby, Miss E. C. ..... c A 1
Spargo, C. D. ..... c D 1
Spinks, H. G. ..... Ag sp
Sprung, Miss S. R. ..... A 3
Squires, H. C. ..... Ag sp
Stacey, Miss D. M. ..... c A 3
Stafford, Miss D. D. ..... A 2
Staley, E. J. ..... A 1 sp
Stanton, H. E. ..... L 2
Steele, Miss E. M. .... A & L 3
Steele, Miss I. M. ..... A 3
Steen, Miss B. ..... Corr
Stephenson, Miss M. V. ... A 2
Stephenson, R. W. ..... S S
Sterritt. W. R. ..... S 1
Stevens, Miss J. ..... A 2
Stevenson, W. R. ..... S 3 sp
Stewart, A. T. ..... Ag sp
Stewart, Miss G. A. .... Grad A
Stewart, Miss J. M. .. HEc 2 sp
Stewart, Miss M. B. ..... c M 1
Stitt, M. H. ..... c D 1
Stock, H. P. ..... PhmL 1

Stocken, Miss G. D. ..... A 2
Stooke, Miss M. M. ...Phm. L 1
Stover, N. M. ..... Grad A
Stuart, O. L. ..... A 2
Stubbs, Miss F. L. ..... Grad A
Stutchbury, E. W. ..... A 2
Suitor, Miss M. H. ..... A 2
Sulis, E. N. ..... M 2
Summerhayes, Miss M. B. .. A 4
Sutherland, J. ..... Ag sp
Swan, J. F. ..... M 1
Swanson, Miss A. ..... PhmD 2
Swanson, Miss M. K. ..... A 2
Switzer, Miss E. N. ..... Corr
Sykes, W. ..... Grad A & B.D.
Symes, W. E. ..... A 1
Tait, R. M. ..... c M 1
Tames, J. A. ..... A 1
Taylor, A. G. ..... S 1
Taylor, C. ..... A & L 3
Taylor, Miss F. G. ..... A 2
Taylor, G. B. .....6..... A 1
Taylor, J. ..... Ag sp
Taylor, J. S. ..... Ag sp
Taylor, R. R. ..... c A 1
Tebo, Miss E. B. ..... c A 2
Tempest, Miss D. ... c PhmD 2
Tempest, F. ..... S 2
Terrill, Miss K. S. ..... A 3
Teskey, H. G. ..... c A 1
Teviotdale, D. J. ..... A 4
Teviotdale, Miss E. F. .. Grad A
Thompson, J. C. ..... Accy F
Thompson, W. ..... A 3
Thomson, Miss O. M. ..... Corr
Thornton, H. R. ..... Ag 1
Thurston, G. W. ..... M 2
Tidball, T. ..... L 1
Tillotson, Miss A. A. .... c A 1
Tillotson, Miss H. B. ..... A 4
Tilson, F. L. .. Grad A & Ag 1
Timmins, Miss B. ..... A 1
Tookey, C. H. ..... A 4
Tookey, K. ..... c Arch 1
Tregillus, Miss M. C. ..... A 4
Trimble, Miss G. ..... HEc 2
Trimble, M. ..... c A & M 1
Trudgill, W. ..... Ag sp
Tucker, E. D. ..... M 1
Turnbull, W. B. .... A & L 1 p
Turnbull, W. C. ..... c A & L 1
Turner, L. E. ..... L 3
Turner, W. J. ..... D 2
Udall, C. ..... Ag sp
Umphry, Miss E. M. ..... Corr
Upton, R. ..... A 1 sp
VanBuskirk, Miss B. E. .... A 1
Vango, H. M. ..... M 3
Varnum, A. C. ..... c A 2
Verreau, E. J. ..... c M 1
Villett, G. H. ..... A 2
Villy, Miss M. H. ..... A 2
Vinton, J. W. ..... Ag sp
Wait, F. E. ..... M 2
Wait, N. A. ..... A 1
Waite, J. L. ..... PhmL 1-yr
Waldron, S. ..... Ag sp
Walker, A. J. ..... M 1
Walker, J. B. ..... A & L 1
Wall, Miss R. S. ..... Corr
Wallace, C. S. ..... M 1
Wallace, P. A. W. ..... Grad A
Wallis, Miss E. I. ..... c A 1
Ward, A. S. ..... Ag 2
Ward, Miss C. C. ..... A 2
Ward, D. S. ..... Ag sp
Ward, E. H. ..... Ag sp
Ward, J. C. ..... c D 1
Warren, F. S. ..... c A 1
Waters, J. ..... Ag sp
Watson, A. M. ..... M 1
Watson, Miss C. B. ..... A 4
Watson, E. R. ..... A 1
Watsyk, J. M. ..... c M 1
Watt, A. L. ..... c A 1
Watt, F. B. ..... c A 1
Webb, H. R. ..... S 3
Webster, D. A. C. ..... A 2
Welch, Miss S. ..... A 3
Wells, J. G. ..... M 3
Wells, T. H. ..... A 4
Wershof, Miss M. ..... A 2
Wershof, S. M. ..... M 3
Weselake, L. ..... c D 1
West, A. ..... Accy Int
Weston, C. A. ..... PhmL 1
Weston, D. T. ..... c M 1
Weston, Miss S. ..... c A 2
Wetterberg, Miss I. I. .... c A 2
Whealon, Miss A. E. ..... Corr
Whiffin, H. E. ..... L 1
White, C. ..... Ag sp
Whitelaw, W. A. ..... A 1
Whitelegg, J. A. ..... Ag sp
Whitelegg, J. A., Jr. ... Ag sp
Whiteman, Miss D. ..... A 3
Whitford, O. W. ..... c A 1
Whitman, F. P. ..... S 1
Whittaker, E. L. ..... A & L 3
Wice, Miss I. M. ..... A 3

Wild, J. ..... Ag sp
Wilkin, W. I. ..... M 3
Wilkinson, H. ..... Ag sp
Willcock, Miss F. ..... Corr
Williams, Miss C. L. ..... A 2
Williams, Miss R. A. ..... A 3
Williamson, R. B. ..... S 2
Willis, E. F. .... Grad A & L 1
Wilson, A. R. ..... D 1
Wilson, C. E. ..... c PhmD 1
Wilson, Miss E. M. .. c A & M 1
Wilson, F. E. ..... A 3 sp
Wilson, G. ..... Ag sp
Wilson, G. L. ..... A 2
Wilson, Miss H. M. ..... c HEc 1
Wilson, H. O. ..... c M 1
Wilson, T. J. ..... c M 2
Wilson, W. F. ..... Ag 2
Wood, Miss A. A. ..... c A 2
Wood, D. ..... A & L 2
Wood, Miss R. Y. ..... c A 2
Woods, Miss A. V. ..... Ag sp
Wootan, R. E. ..... Ag sp
Woslyng, J. ..... Corr
Wournell, A. A. ..... Ag sp
Woyewitka, J. ..... c A & L 1
Wrinch, L. B. .....A & M 2
Yakimischak, J. ..... M 2
Yampolsky, M. L. ..... c D 1
Yeates, W. ..... Ag sp
York, D. A. ..... S 1
Young, C. ..... A 3 p
Young, C. W. ..... c A 1
Young, G. F. ..... M 3
Young, Miss M. M. ..... A 2
Yuill, J. H. ..... S 1
Zaharychuk, A. ..... M 1

SCHOLARSHIPS

The Women's University Club Scholarship:

For women in the first year of the Faculty of Arts and Sciences.
(Not Awarded.)

Scholarships in the Faculty of Medicine Offered by the College of Physicians and Surgeons of the Province of Alberta.

First year—General Proficiency: Joseph Francis Swan.
Third year—Physiology: Joseph Alexander Parker.
Third year—Anatomy: Preston A. M. Lyster.

PRIZES

The Jane Alexander Memorial Prizes:
In Latin: Leonard Breckon Wrinch.
In Geology: Lorne Good.

The Bennett Prize:
First: Not awarded.
Second: Mercy Beatson Summerhayes.

Prize in Botany:
(Not awarded.)

The Gordon Stanley Fife Memorial Prize in History:
Aileen Dunham.

The Samuel Richard Hosford Memorial Prize in English:
Stuart Perry Hamilton.

The Harold Waldo Huestis Memorial Prize in English:
Margaret Harman Villy.

Prizes in Mathematics:
In Mathematics 1: Geoffrey Bradford Taylor.
In Mathematics 1, Advanced Section: Wilfrid Eric Symes.
Prize in the History of Medicine:
(Not awarded.)

The Vallée French Prize:

James Brown.

The French Prize of the Societé du Parler Français:

Margaret Harman Villy.

The French Prize of the Comité Permanent de la Langue Française:

(Not awarded.)

The Historical Club Prize:

Dudley Frank Pegrum.

MEDALS

The Governor-General's Medal:

Faculty of Agriculture: Guthrie Brown Sanford.

The Lieutenant-Governor's Gold Medal for the Study of Shakespeare:

Walker Dunham.

The Charles Allan Stuart Gold Medal in Classics:

(Not awarded.)

The Alexander Cameron Rutherford Gold Medal in English:

(Not awarded.)

The Women's University Club Gold Medal:

For Proficiency in the Faculty of Arts and Sciences:

Helen Josephine Hotson and Daniel Roland Michener, equal.

The John A. McDougall Gold Medal:

For Proficiency in the Faculty of Applied Science:

(Not awarded.)

The Chief Justice's Gold Medal in Law:
(Not awarded.)

The James Ramsey Gold Medal in Mathematics:
Alexander James Cook.

FELLOWSHIP.

The Lloyd Hartnoll Bishop Memorial Fellowship in English Literature:
(Not awarded.)

CONFERRING OF DEGREES.

Admitted to the Degree of Bachelor of Arts:

Anderson, Esther Irene
Craig, Gwynnyfred Ann
Duncan, Grace Helen
Dunham, Aileen (First Rank Honours in History)
Fergusson, Kathleen
Fraser, Elizabeth Kennedy
Henderson, Flossie Cathleen
Hull, Louie Mildrid
Johnson, Gladdis Grace
McFarland, Constance N.
Porteous, Bessie Offord
Summerhayes, Mercy Beatson
Tillotson, Hazel Blanche
Tregillus, Muriel Claire
Watson, Cecilia Barbara
Anderson, Ernest Hjalmar
Bailey, Kenneth LeRoi Gove
Becker, Charles
Clark, Giles Harwin
Clarke, Roy Percy
Colter, Robert Kennedy
Dickins, Francis Collingwood
Dunham, Walker
Emery, Howard Tracy
Forster, Ralph Perrin
Hamilton, George Henry
Kane, Edward. Wm. Scott
Lougheed, Edgar
Love, John Russell
MacGillivray, Robert Brown
McNaught, Robert Adair
Michener, Daniel Roland
Paton, Thomas Stevenson
Teviotdale, David Jefferson
Tookey, Clarence Hall
Wells, Thomas Henry

Admitted to the Degree of Bachelor of Arts, ad eundem:

Ball, Margery Clarke, B.A.
Bayley, Milton Dawson, B.A.
Bergsagel, Knut, B.A.
Card, Gerald, B.A.
Dobson, William, B.A.
Edmonds, W. Everard, B.A.
Jampolsky, Moses, B.A.
Lake, Ethel Margaretta, B.A.
Pearce, Walter Richard, B.A.
Tilson, Frederick Lemon, B.A.
Wallace, Paul Anthony Wilson, B.A.

Admitted to the Degree of Bachelor of Science in Arts:

Hotson, Helen Josephine
Cook, Alexander Joseph (First Rank Honours in Mathematics)
Francis, Samuel Augustus Moulton
Miller, Robert Perry

Admitted to the Degree of Bachelor of Science in Engineering:

Batson, Frederick James
Carswell, John Arthur
Hollies, Robert Talbot
Lillico, Robert Sewell Bruce
McKittrick, Elmer Samuel
Miller, Lawrence Victor
Reilly, Charles Frederick

Admitted to the Degree of Bachelor of Science in Agriculture:

Buckley, George Frederick Harland
Hillerud, Sylvan Oswald
Martin, John Noy
Robinson, Victor Byron
Sanford, Guthrie Brown

Admitted to the Degree of Bachelor of Science in Household Economics:

McKinnon, Edith Catherine

Admitted to the Degree of Bachelor of Laws:

Bryenton, Percy Roland
Day, Frederick George
Fraser, Harry Blackwood
McBride, James Boyd
Soltau, Wilfrid Gustave

Admitted to the Degree of Doctor of Dental Surgery:

Mullin, John Alexander MacDonald
Sands, Sydney Henry

Admitted to the Degree of Doctor of Medicine, ad eundem:

Hankinson, Cecil Hazen, M.D., C.M.

Admitted to the Degree of Bachelor of Divinity:

Geeson, John Richard, B.A.
Laycock, Samuel Ralph, M.A.
Sykes, William, B.A.

Admitted to the Degree of Master of Arts:

Lake, Ethel Margaretta, B.A.
McNamara, Sister Annie Bernadette, B.A.
McNamara, Sister Mary Ethelburga, B.A.
Teviotdale, Elizabeth Fleming, B.A.
Flack, Gordon Lewis, B.S.A.
McQueen, Robert, B.A.
Mattern, Leroy, B.A.
Morecombe, Percy Frederick Guido, B.A.
Niddrie, John George Francis, B.A.
Robinson, George, B.Sc.
Ronning, Nelius Theodore, B.A.
Smith, Walton Larue, B.A.
Stewart, Grace Anne, B.A.
Sykes, William, B.A.

Admitted to the Degree of Master of Science in Arts:

Rutherford, Ralph Leslie, B.Sc.

Since Convocation, 1919, the following persons have passed the examinations for License to Practise, conducted by the University on behalf of the Affiliated Professional Societies:

In May, 1919.

Accountancy:

Carr, A. H.
Gregory, E. T.
Maxwell, G. A.
Sterns, P. W.
Watson, J. W.

Dentistry:

Budd, G. E.
Denholm, R. F.
Johnson, R. J.

Land Surveying:

Atkins, J. R.
Montgomery, R. H.

Law:

Albright, Evelyn K.
Arnold, C. R.
Atkinson, W. G.
Barron, A. L.
Dafoe, L. G.
Helman, S. J.
Hurlburt, H. S.
Knight, A. M.
O'Connor, T. J.
Roach, T. F.

Medicine:

Emmett, A.
Gamey, L. R.
Miller, F. G.
Rowe, E. A.
Valens, A. W.

In September, 1919.

Dentistry:

Coffin, A. H.
Landing, H. M.
Mullin, J. A.
Sands, S. H

Law:

Bridges, E. C.
Buchanan, G. F.
Campbell, J. M.
Craig, L. A.
Dunne, P. M.
Garside, T. E.
Hudson, E. H.
Kirkham, J. S.
Lincoln, A. G.
Mahaffy, A.
Sells, J. F. C.

Medicine:

Backus, P. L.
Bowles, A. W.
Giffen, J. W.
Hill, W. H.
McCullough, R. C.
Mann, S. M.
Riopel, J. H.
Rosenkrans, L.

In December, 1919.

Nurse's Registration:

Anthony, Mrs. L. M.
Belcher, Anna
Brown, Marion J.
Craig, Marion D.
Crowe, Mary J.
de Satge, Luci L.
Durling, Mrs. A.
Emerson, Blanche A.
Hollerand, Mary E.
Keith, Flora A.
Lamont, Isabella
McLeod, Christina
McMillan, Isabel
McNish, Rena E.
Marshall, Iva P.
Martin, Andrée V. M.
Mattern, Ernestine
Morgan, Iva F.
Mott, Dora G.
Perry, Lola M.
Peterson, Ruth C.
Reid, Annie G.
Runians, Lily E.
Scott, Janet B.
Smith, Clara E.
Strem, Marlka
Walker, Iva I.
Wharton, Hildred A.
Wilkin, Minnie A.

Pharmacy:

Gagner, T. E.
Johnston, J. S.

In January, 1920.

Land Surveying:

Atkins, C. B.
Berry, E. W.
Bradley, N. H.
Coursier, E. C.
Duffield, H. J.

In April, 1920.

Dentistry:

Allan, G. A.
Dawe, J. H.
Lipsey, C. H.
McClurg, W. C.
Taylor, H. A.

Land Surveying:

Calder, L. P.
Robertson, D. M.
Russell, J.

Pharmacy:

Clark, J. F.
Cragg, M. B.
Hull, G.
McKinnon, W. S.
Rhymes, J. B.
Patterson, T. E. H.
Waite, J. L.